7-1-1964

Indiana Farmers and State Tax Policy: The Question of Differential Impact

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I. Summary and Conclusions

The impact of Indiana's new state taxes on farmers is analyzed in two steps: first, an estimate of the absolute and relative amounts of the personal income and retail sales taxes to be paid by farmers; second, an inquiry as to how these estimated magnitudes vary under alternative, equal-yield tax programs. By imposing the combination of an income tax and retail sales tax as replacement for the gross receipts tax, the State of Indiana now determines an individual's tax liability by the amount and disposition of income instead of the amount and source of receipts. To summarize the effects of this shift on farmers:

1. In terms of the combined impact of the personal income and retail sales taxes, farmers are expected to contribute $5 million, or 1.2 percent of the total estimated collections from these two sources over the 1963-65 biennium. This would compare with $8.7 million or 2.6 percent of the total estimated collections under the former gross receipts tax over the same period.

If it is accepted that $434 million of tax revenue was required—the amount actually budgeted from the new sources—how would the farmers' share have compared under alternative tax programs? Five programs are examined:

1. An across-the-board rate increase in the former gross receipts tax would have resulted in farmers paying $13 million, or 2.6 percent of the total collections.

2. If the gross receipts tax had been retained, its rates held constant and with the required additional revenue being raised by the imposition of a retail sales tax, farmers would have contributed a total of $10.3 million, or 2.4 percent of the total.

3. Reliance entirely on a retail sales tax would have imposed a $10 million collective tax liability on farmers, representing 2.3 percent of the total collections. A retail sales tax with food and prescription drug purchases exempt would have increased this share slightly to $10.5 million, or 2.4 percent.

4. Under a flat-rate personal income tax, farmers would have been responsible for $4.3 million, or 1 percent of the total collections.

5. If the gross receipts tax had been retained, its rates held constant and the remainder of the required revenue raised from the local property levy, the farmers' probable share would have been $26 million or 6 percent of the total.

The methodology and assumptions on which these computations are based are developed in succeeding sections.

From the analysis, it can be concluded that the structure of state-local taxation is the chief factor determining relative occupational shares. By comparison with other groups, farmers are, generally speaking, property-rich and income-poor. It follows that almost any tax, but especially one measured by income, is preferable to farmers to raising an equivalent sum through increased reliance on property taxation. If the rivals in the formulation of state tax policy are equal-yield income and sales taxes, the latter would probably extract the larger share from farmers because taxable expenditures can easily exceed taxable income for low income groups. But, if the goal of tax
policy is to move in the direction of greater balance in the distribution of individual tax liabilities on the basis of income, expenditures, and property (accumulated wealth), some combination of income-sales tax plan is required. In retrospect, such apparently was the intent of the 93rd Indiana General Assembly.

II. Introduction: Purpose and Scope

In 1963, the Indiana General Assembly recast the state's tax system to accomplish three purposes: (1) provide additional revenues, (2) account for the normal rise in the costs of public services, and (3) achieve a more acceptable distribution of tax liabilities. The new components of the system are a 2 percent individual and corporate income tax, and a 2 percent retail sales tax. The revised system is designed to produce $230 million of additional General Fund revenue over the 1963-65 biennium and is expected to generate automatically yields that increase at a rate at least equal to the rate of growth in the state's economy. On the basis of the present and prospective strength of the new fiscal structure, the legislature approved a 44 percent ($110 million) increase in state aid to local schools which, coupled with the increased reliance on the amount and disposition (spending) of income as sources of taxation, effectively reduced the share of state and local revenues derived from the local property levy.

The administrative and compliance problems associated with the introduction of the new taxes have received considerable attention. But their likely impact on occupational groups has remained virtually unexplored or, at best, highly conjectural. The purpose of this study is to measure the impact of the new taxes on Indiana farmers and to compare their relative group position with that of nonfarmers. 1/ In addition, because tax policy is concerned with alternative methods of financing a given level of expenditures, the distributional changes between farm and nonfarm sectors that result from the substitution of tax programs with equal yields are examined. 2/

This discussion treats only new General Fund taxes, but not the local property tax payments of farmers and other owners of real estate and personal property. Thus, it examines only part of the taxpayer's total tax package.

The following sections present more detailed analysis. Section III contains a brief description of the new components of the tax system. In Sections IV and V, estimates of the tax liabilities on farmers under the adopted and alternative tax programs are developed.

III. New Components of the Indiana Tax System

The following general description of the new components is confined to the

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1/ No attempt is made here to identify the farmers' over-all contribution to the support of state and local government. Specifically, the analysis excludes the local property levy and a variety of other state taxes such as the cigarette and liquor excises and the intangibles and inheritance taxes. A comprehensive distributional study by occupational groups is planned for a later date.

2/ The difference in the distributional results of two or more tax plans which provide the same amount of revenue is referred to as differential tax impact.
personal income and retail sales taxes. Tax payments of farm proprietors may be affected by the corporate (gross and net) income taxes, but these would also be reflected in the individual income tax base through the receipt of dividends. 3/

Personal Income Tax

All individuals, partnerships, and unincorporated businesses are taxed at 2 percent on their adjusted gross income as defined for Federal income tax purposes (line 9, Form 1040, U.S. Individual Income Tax Return - 1963) less taxpayer and dependency exemptions. The single modification to Federal adjusted gross income is the addition of any state and local taxes which were previously deductible as business expenses. For farmers, these are taxes attributable to the production of farm income (indicated in Part III, Schedule F - Form 1040, Schedule of Farm Income and Expenses) and consist essentially of portions of the local property tax levy.

By adopting the Federal concept, the tax permits the deduction of all expenses (with the single exception of the above-mentioned taxes) incurred in earning income or related to income-yielding property. These include wages paid to hired labor, seed, feed and fertilizer purchased, breeding fees, interest on notes and mortgages, outlays for depreciation, repairs, maintenance and insurance on farm property, and all other ordinary and necessary farm production expenses. In addition, only the net gain from the sale of capital assets (e.g., real property, livestock held for draft, breeding and dairy purposes, etc.) is subject to tax. By contrast, the former gross receipts tax provided no deductions for any business expenses or any losses on sales.

The tax provides for an exemption of $1,000 for the taxpayer and $500 for his spouse and for every other dependent listed on his Federal income tax return. An additional $500 exemption is allowed persons over 65 years of age and the blind. 4/ Formerly, the maximum exemption per return was $1,000 regardless of family size, age structure, or level of income.

Projections of personal income tax receipts are based on forecasts of personal income, adjusted gross income, and population characteristics. It is estimated that over the two-year biennial period total tax collections from this source will approximate $257 million.

Retail Sales Tax

The sales tax is levied at 2 percent on retail purchases of tangible personal property. It also applies to retail purchases of natural and artificial gas, electricity, steam, water, intrastate telephone and telegraph, and to room and lodging rentals of periods less than 30 days. A complementary 2 percent use tax is imposed on tangible property purchased at retail outside of Indiana and brought into the state for use, storage, or other consumption.


4/ On joint returns, the exemption for a working spouse is $500 or up to $1,000 of the adjusted gross income of the spouse. Depending on individual circumstances, the combined total of exemptions for a taxpayer and spouse may range from $1,500 to $4,000.
Excluded from the tax are all purchases not intended for final consumption (i.e., purchases for resale and for direct use in the production process). These include raw materials, seed, feed, fertilizers, agricultural and manufacturing machinery, tools and equipment, and utility services when predominantly employed in farming, manufacturing, mining, processing, and similar activities. Casual sales, sales in inter-state commerce, newspapers, and meals served to school children (grades 1-12) on school premises are exempt from the levy.

In general, farmers are not subject to the sales tax on purchases of items which are normally considered business expenses for purposes of computing the Federal and Indiana personal income taxes. 5/ Two percent of the retail price, however, is paid on all purchases of tangible items used for personal consumption, such as groceries, clothes, house furnishings, and the like. The tax is also ordinarily paid on purchases of building materials, fencing, and other items that go into permanent structures or improvements.

Every Indiana resident is exempted from paying the retail sales tax upon $300 of annual taxable purchases. The exemption is administered by means of a year-end $6.00 per person credit permitted as a deduction from the tax liability computed under the personal income tax. If the amount of credit exceeds the income tax liability or if the tax liability is zero, a refund is paid. For example, a married couple with three children is entitled to a $30 tax credit or refund, the equivalent of $1,500 of exempt purchases of taxable goods.

Based upon projections of taxable retail sales, the tax is estimated to yield $213 million over the 1963-65 biennium. Deduction for the per capita sales tax credit or refund, however, reduces the "net" collections to $177 million.

IV. Estimated Tax Payments of Farmers

The objective of this section is to allocate the combined estimated yield from the personal income and retail sales taxes ($434 million) to farm and nonfarm sectors of the Indiana economy.

Personal Income Tax

General Comments. - Before outlining the allocation procedures, some general observations are in order regarding income characteristics of farmers relative to those of nonfarmers. As a group, family income of farmers tends to be lower. The 1960 Census of Population, for example, records a median income for Indiana rural farm families of $4,317 as compared with $6,117 for urban families and $5,798 for all families combined. 6/ On the other hand, farmers receive part of their income in the form of goods produced and consumed on the farm. The latter are not recorded in the Census' data, nor are they taxable. For 1962, the U.S. Department of Agriculture estimated the total value of home-produced, home-consumed food of Indiana farmers at $28 million. 7/ Moreover, the relative importance of nonfarm income of farm families has been increasing. In the latest agricultural census, the average income per farm-operator family from other sources was 36 percent greater in 1960 than in 1955. 8/

5/ Guidelines for farmers are provided in Circular ST-30 (January 2, 1964), State of Indiana, Department of Revenue.
Cash wages and salaries constituted 56 percent of the total estimated nonfarm income. Finally, there is a significant difference between farm income reported for income tax purposes and estimates of realized net farm income compiled annually by the USDA. To illustrate, after deduction of the value of home consumption and gross rental value of farm dwellings from the latter estimate for 1961, 37 percent of the remainder was reported nationally as farm income for Federal income tax purposes. 9/ Conceptual differences and the difficulties involved in separating personal and business expenses for unincorporated businesses explain much of the discrepancy.

Summary of Sources and Methods.---The statistical approach and methods adopted in estimating and projecting the farm share of personal income tax collections were a function of the character of the available data. Basic information for preparing the estimates of the adjusted gross income of farmers was obtained from the Federal Internal Revenue Service, the Economic Research Service of the USDA, and the Data Processing Division of the Indiana Department of Administration.

In general, the procedure was first to determine the aggregate net farm profit of Indiana noncorporate farm enterprises and their income from "all other sources." Adjusted gross income of farmers was calculated by summing these components. A farm-nonfarm adjusted gross income ratio was applied to 1963-1965 projections of adjusted gross income to furnish the estimated farm share. Taxable income was adjusted gross income plus taxes associated with the farm business minus taxpayer and dependency exemptions.

Tabulations from Federal income tax returns of farmers provided by the IRS audits for the period covering 1959-1961 constituted the statistical benchmark materials. 10/ For 1961, they included the number of Indiana farm proprietorships and partnerships and their farm-related receipts, as well as detailed information on net profits, other components of total receipts, and selected business deductions of the state's noncorporate business enterprises. The projections of the adjusted gross income of farmers were made on the "as-is" assumptions that the benchmark ratios of farm net profit to farm business receipts, farm net profit to adjusted gross income, and income from nonfarm sources to adjusted gross income would remain stable for the two-year period July 1, 1963, to June 30, 1965.

Data for the computation of income from sources other than the farm operation were taken from the 1962 Indiana gross income tax statistical tabulation and were collated with 1960 Census figures on type of income of Indiana rural farm persons. With only minor technical adjustments, the tax add-back figure was benchmarked on the quinquennial Census of Agriculture. 11/ The Indiana State Board of Tax Commissioners provided current data on local property levies upon which projections were based. Census data, the 1961 IRS report, and 1962 gross receipts tax returns were used to determine the estimated number and dollar value of taxpayer and dependency exemptions.

A word of qualification is needed concerning the numerical results. Because of the accumulation and matching of data in the process of preparing the estimates, emphasis


10/ Statistics of Income, op. cit.


<table>
<thead>
<tr>
<th>Item</th>
<th>Millions of dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Net profit from farm business</td>
<td>278.4</td>
</tr>
<tr>
<td>2. Plus: Income from nonfarm sources (wages and salaries, interest, dividends, net rental income, etc.)</td>
<td>213.3</td>
</tr>
<tr>
<td>3. Equals: Adjusted gross income of farmers</td>
<td>491.7</td>
</tr>
<tr>
<td>4. Plus: State-local farm business taxes</td>
<td>111.2</td>
</tr>
<tr>
<td>5. Minus: Taxpayer and dependency exemptions</td>
<td>484.0</td>
</tr>
<tr>
<td>6. Equals: Taxable income</td>
<td>118.9</td>
</tr>
<tr>
<td>7. Tax at 2 percent</td>
<td>2.4</td>
</tr>
</tbody>
</table>

on the judgment factor was necessarily considerable. As with all projections of economic variables, the absolute magnitudes give the appearance of greater precision than they, in fact, possess. With the benefit of supplementary information, however, the final estimates were evaluated and adjudged to be plausible orders of magnitude.

Results.--The derivation of tax payments of Indiana farmers under the personal income tax is summarized in Table 1. Over the period covered in the analysis, Indiana farmers are estimated to pay $2.4 million, accounting for 1 percent of the total collections.

Retail Sales Tax

General Comments.--Variations in Indiana sales tax payments depend on the size of the family unit, its level of income and corresponding expenditure pattern. Farm families can be expected to pay less in sales taxes on consumer goods than nonfarm families of equal size and with equal incomes because they produce part of their own food for home consumption.

Moreover, because the average number of persons in farm households is slightly larger than in nonfarm households, the $6.00 per person sales tax credit also provides a favorable differential. And although basic expenditure patterns may not differ significantly between farm and nonfarm families, the line of distinction between taxable (personal) and nontaxable (business) purchases, say of utility services, tends to favor the former.

It should again be mentioned, however, that farm families generally have lower incomes than nonfarm families. This itself limits expenditures, which means smaller sales tax payments. But, at the same time, a relatively large proportion of the budget of low-income families is subject to the sales tax. Thus the burden of the retail sales tax (i.e., tax payments measured as a percentage of income) may be greater on farm than nonfarm families. The focus here, however, is on tax impact and not burden.
Table 2. Derivation of estimated retail sales tax payments of farmers, 1963-65.

<table>
<thead>
<tr>
<th>Item</th>
<th>Millions of dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total farm-family nonbusiness expenditures.</td>
<td>416.8</td>
</tr>
<tr>
<td>2. Times: Percentage of expenditures subject to tax.</td>
<td>.719</td>
</tr>
<tr>
<td>3. Equals: Total taxable purchases.</td>
<td>299.7</td>
</tr>
<tr>
<td>4. Tax at 2 percent.</td>
<td>5.9</td>
</tr>
<tr>
<td>5. Less: Per capita sales tax refund.</td>
<td>3.3</td>
</tr>
<tr>
<td>6. Equals: Total tax payments.</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Summary of Sources and Methods.— The projection of farmers’ sales tax payments involved the same data problems discussed above in connection with the personal income tax and more, for here both the amount and use of income are crucial. The USDA has compiled and published comprehensive regional information on farmers’ production and family-living expenditures. 12/ The percentage distribution by type of total expenditures of farm-operator families in the East North Central census division was used in this analysis. 13/ Thus, the computations are based on the assumption that intra-regional variations in farm expenditure patterns are minor and that these patterns change only slowly over time.

Benchmark relationships were calculated between expenditures and realized net farm income for farmers in the census division. These ratios were then applied to projected net farm incomes in Indiana. Data on type of expenditures provided the identification of taxable and nontaxable purchases under the Indiana sales tax. Tax payments were computed by applying the rate to total taxable purchases. The sales tax credit was subtracted from this product.

In Table 2, the estimated retail sales tax payments of Indiana farmers are given. As indicated on line 6, the farmers are expected to contribute just under $3 million or 1.5 percent of the total $177 million estimated collections from the retail sales tax.

To summarize in terms of the combined impact of the personal income and retail sales taxes, farmers are called upon to contribute $5 million, or just over 1 percent of the total collections from these two sources over the 1963-65 biennium.

13/ Besides Indiana, the division includes Illinois, Michigan, Ohio and Wisconsin. The budgets were checked for general consistency with Life Study of Consumer Expenditures, Time, Inc., Vol I (1957) and 1962 Survey of Consumer Finances, Monograph No. 32, Survey Research Center, Institute for Social Research, The University of Michigan.
Differential Impact of Alternative Tax Policies

Tax policy must necessarily be concerned with alternative methods of financing a specified expenditure program. Understandably, the impact on farmers of other patterns of taxation would differ in varying degrees from that described in the preceding discussion. To aid further in gaining perspective and judgment, this section compares the farm-nonfarm distribution of tax liabilities under the enacted program with those resulting from the adoption of different tax "packages," the same yield being obtained in all cases. On the assumption that the Indiana economy would not react differently to changes in the pattern of taxation, an answer is proffered to the question: What tax structure appears "best" for farmers?

Given that $434 million of tax revenue must be raised, the differential impact between Indiana farm and nonfarm sectors of the following five tax programs is examined: 14/

A. Across-the-board increase in the gross receipts tax
B. Combination retail sales and gross receipts tax
C. Retail sales tax (with varying provisions)
D. Personal income tax
E. Gross receipts and property tax.

The first and last of these alternatives have the characteristics of simplicity of enactment, familiarity, and predictability. Alternatives A, C, D and E all possess the attribute of reliance of a single state tax, while program B provides for a multiple-base structure.

Alternative A: Across-the-Board Increase in the Gross Receipts Tax

The former Indiana gross receipts tax was applied generally to receipts from all transactions, including compensation for personal services in the form of wages, salaries, fees, and the like. Interest, dividends, and gross rental income were also part of the tax base. A dual schedule of rates was used, with personal income-type receipts taxed at 1.5 percent and business-type transactions, such as sales of agricultural products, assessed at 0.375 percent.

For the gross receipts tax to have produced $434 million from the noncorporate sector of the Indiana economy, the rates would have had to be increased by one-half, that is, to 2.25 percent and 0.56 percent, respectively. According to statistical data compiled by the Central Data Processing Division, Indiana Department of Administration, farm proprietors consistently accounted for 2.6 percent of the total annual collections from the gross receipts tax. If their share had remained unchanged, farmers would have contributed $13 million over the 1963-65 period under alternative A.

Alternative B: Combination Retail Sales and Gross Receipts Taxes

If the adopted 2 percent retail sales tax were to have been combined with a uniform adjustment in the rates of the gross receipts tax so as to provide the remainder of the required revenue, the farmers' share would likely have amounted to $10.3 million, or 2.4 percent of the total. An estimated $7.7 million would have been paid under the gross

14/ The selection of alternatives was based on programs considered in the 1963 legislative session and those currently receiving widespread discussion. The differential impact analysis holds constant the corporate tax structure and its yield.
receipts tax, primarily on receipts from sales of agricultural products subject to a 0.33 percent rate.

Alternative C: Retail Sales Tax

Under alternative C, the entire $434 million revenue requirement would have been met by a retail sales tax. Allowing for a $6.00 per capita tax refund, "gross" collections of $470 million over the 1963-65 biennium would have been required, necessitating a 4 percent tax rate. If no alternatives in household expenditure patterns were to have accompanied the tax, farmers would have likely paid a "net" of $10 million, representing 2.3 percent of the total collections.

A variant of alternative C would have also relied entirely on the retail sales tax, but would have replaced the per capita sales tax refund with over-the-counter exemptions for retail purchases of food for home consumption and of prescription drugs. Because these substitute provisions are not offsetting in terms of yield equivalents, a rate of 5 percent would have been required under this variant (designated C-I). Farmers would have accounted for $10.5 million or 2.4 percent of total collections. Their relative share would have increased by 5 percent as a result of the substitute provisions. This follows for two reasons. The credit gives some relative advantage to farm families because of their size. And, in contrast, the general food exemption gives a differential advantage to nonfarm families because, all other things equal, they spend a larger proportion of their income on purchases of food. Recall, earlier reference was made to the extent to which Indiana farmers presently produce food for home consumption.

Alternative D: Personal Income Tax

The fourth program to provide $434 million of revenue would have relied completely on the personal income tax as currently constituted, except that the required proportional rate would have been 3.5 percent instead of 2 percent. On the basis of previously determined relationships, farmers would probably have paid $43 million (1 percent) of the total collections.

Alternative E: Gross Receipts and Property Tax

The final hypothetical example in the differential impact analysis would have involved no structural change in the state's tax system. Rather, the difference between the projected yield of the former gross receipts tax (with rates of 1.5 and 0.375 percent and the given expenditure level would have been accounted for by an appropriate increase in the local property levy. Of the required $434 million, the gross receipts tax would have provided $290 million and the property tax the remainder, $144 million. Under the gross receipts tax, farmers would have paid $8.7 million, and under the property tax almost twice that amount, or $17.3 million. Combined, the farmers' share of tax "package" E would have been $26 million, or 6 percent of the total.

Summary.---The foregoing results provided the framework for comparing the

15/ The basic sources for the calculations of property tax shares were statistics from the 1959 Census of Agriculture, Special Report, Vol. 5, prepared cooperatively by the U.S. Departments of Agriculture and Commerce and tabulations of property tax levies prepared by the Indiana State Board of Tax Commissioners. Because the share of the total property tax levy attributable to corporate enterprises was not separable, the farmers' estimated proportion is probably on the "high" side.
Figure 1. Comparative analysis: Percentage composition of tax responsibility under alternative programs.

probable impact on Indiana farmers of substitute equal-yield tax programs. For convenience and ease of reference, these results are portrayed graphically in Figure 1. Because the underlying assumption in each case is a yield requirement equal to that of the tax program actually adopted, the farm-nonfarm shares are expressed as percentages of the total.

From the viewpoint of any individual Indiana farmer, the "best" tax structure, as measured by least tax payments, would depend on a number of subjective factors, including (a) ownership position, i.e., tenant or owner, (b) location, i.e., rural or urban fringe, (c) indebtedness, (d) productive input mix, i.e., whether purchased or home-produced, (e) expenditure pattern, (f) family size, and (g) amount and type of income from farm and nonfarm sources. But by treating all farmers as a group, the relationships given in Figure 1 permit ranking of alternative tax programs from generally the "most preferred" to the "least preferred."

It is evident that Indiana farmers if they only looked at the least cost would prefer tax program D which consists exclusively of a tax on personal income. On the other hand, plan E (gross receipts and property tax) ranks as the "least preferred" alternative, requiring six times the share of tax plan D. The choice between B and C-1 is reversible, in that the shares are identical. By rank order of preference, the tax "package" actually enacted by the 1963 Indiana General Assembly is second only to plan D. And the difference between the two seems nominal. In contrast, there is almost a threefold difference between the program enacted and tax plan A. The latter would have satisfied the yield requirement simply by an across-the-board gross income tax increase.