

House Bill 920: *Ohio's Unique Method for Controlling Tax Increases*

Overview

Like those across the United States, schools and local governments in Ohio can levy taxes on real property to fund public services. However, the Ohio Constitution limits such taxes in important ways. Ohio's real property tax also uses a unique system of adjustments to control year-to-year tax increases. These limits on tax increases go by the technical name of "tax reduction factors." The whole system is simply referred to as "House Bill (HB) 920," borrowed from the title of the 1976 legislation that enacted them.

Why was HB 920 enacted? How does it work? What issues arise from its operation? This report addresses these questions. Unfortunately, the HB 920 system is quite complicated. To explain it fully requires precise use of technical terms. Precise technical descriptions of tax laws rarely make for entertaining narratives, so the following pages attempt to achieve a compromise between a description with technical perfection and one that non-specialists can understand and appreciate. To achieve such a balance, this description of Ohio's taxes will not attempt to explain every nuance of HB 920, or every policy issue involved in its administration.

Over the years, much attention has been paid to HB 920, which was later added to the Ohio Constitution. Recently, historically high increases in property values have again placed the provisions of HB 920 in the spotlight. For 47 years, HB 920's tax reduction factors have reduced taxes in proportion to increases in property value. Indeed, HB 920 did solve the problem faced by the legislature in 1976 when rapid inflation in housing values increased tax liabilities for many homeowners.

However, the solution to one problem created other public policy issues. HB 920 added complexity to an already complex taxing system, and it interacts with the existing tax laws and state aid formulas in ways that can create perverse effects. Most importantly, the provision has placed Ohio's school districts and other local governments at a disadvantage in securing stable and growing revenue to keep up with rising costs. Instead of seeing revenues grow automatically to cover inflation, school districts and other local governments have had to return to the ballot again and again just to try to keep up with costs.

In simplest terms, HB 920 has two effects. It controls so-called "unvoted" tax increases. Secondly, it forces local governments to return to the ballot if they want more revenue. For this reason, the HB 920 system fosters a kind of accountability. If a local government in Ohio needs more property tax revenue, it can obtain that revenue if it can convince voters the additional revenue really is needed. From 1976 through 2022, 12,560 school operating levies have been on the ballot, 52.9% of which were approved by voters. These figures give Ohio the distinction of having more school levies than any other state. Thus, a major disadvantage of HB 920 lies in its inefficiency. Its control of automatic property tax increases comes at the price of frequent ballot activity.

General Background about Real Property Taxes in Ohio

Every tax follows a simple formula:

$$\text{Tax Due} = (\text{Tax Rate} \text{ TIMES Tax Base}) \text{ MINUS Tax Credits}$$

This formula applies to every tax, even the federal income tax. The complications arise when a taxpayer or tax assessor must define each of the three factors in the formula. What is the tax rate? How is it determined? To what base does the rate apply? How does the tax base become defined by a specific dollar amount? After the tax base is multiplied by the tax rate, the resulting product may be reduced by what are usually called “tax credits.” In fact, HB 920 fits precisely under the concept of tax credit.

Tax Rate

In Ohio, real property tax rates are expressed as “mills.” A mill equals one-tenth of one percent. A simple way to think about tax mills is that 10 mills is equivalent to a 1% tax rate. The Ohio Constitution requires that voters approve any tax on property in excess of 10 mills.¹ The first 10 mills are known as unvoted or “inside” mills. Every location in Ohio has approved more than the 10 mills allowed by the Constitution. Additionally, different kinds of local governments may seek voter approval for property taxes, including municipalities, townships, counties, school districts, and various special districts including services for development disabilities, children’s services, elderly services, and many others. The tax rate applied to any specific real property equals the sum of the taxes approved by the voters in all of the local governments within which that specific property is located. Such an area is known in Ohio as a “taxing district.” Because of the overlapping geographic boundaries of counties, school districts, municipalities, townships and other special districts, there are over 4,000 individual taxing districts in Ohio.

Tax Base

The value of each property determines the tax base of the real property tax. The county auditor in each of Ohio’s 88 counties has the responsibility of determining the value of each parcel of land and any building on the land. Once every six years, the county auditor supervises a reappraisal of all real property in the county. The counties follow a staggered schedule whereby a different group of counties reappraises in each calendar year.

In the third year after the reappraisal, the auditor also uses information about recent property sales and updates real property values using statistical computations. The reappraisal is called the “sexennial reappraisal,” and the adjustment three years later is called the “triennial update.” The Ohio Tax Commissioner exercises some supervisory authority over the reappraisals and updates to ensure that the auditor has followed appropriate procedures and valued property fairly. The

¹ Technically, the Constitution requires voter approval of all taxes in excess of “1% of true value.” Since a mill is 1/10 of a percent, this has been interpreted to mean all taxes over 10 mills require voter approval. However, because an assessment percentage of 35% is applied to real property to determine its taxable value, it has been asserted by some that a tax rate of 28.57 mills (not 10) is really equivalent to “1% of true value.” This interpretation would mean that the Constitution really allows up to 28.57 “inside” mills, although this has never been legally tested.

Commissioner's supervisory duties also include measures to insure consistent assessment practices from county to county.

In the reappraisal or update process, the county auditor determines the market value of each parcel of real property. Market value is also called "true value." True or market value approximates the amount that a buyer would pay to a seller in an "arms-length" property sale (a sale on the open market). Of course, sometimes, the auditor can rely on an actual sale transaction, but since most properties do not change owners every three years, the auditor must use information about sales of similar properties to estimate a market value for most property. Property values tend to increase each time the county auditor reappraises or updates property in a county and at the time property is sold.

The appraisal process defines market or true value, but another step occurs before the computation of tax liability. Specifically, the auditor multiplies the true or market value of each parcel of property by 35% to determine the "assessed value" or "taxable value." (The history of this assessment percentage is discussed below.)

The product of the assessed value times the total tax rate equals the tax liability for a parcel of property before the third step in the formula, the deduction of tax credits occurs.

The Tax Reduction Factor and Other Tax "Credits"

The product of the tax rate times the assessed value of a parcel of real property equals a kind of *preliminary tax liability*. If the property value in that taxing district increases, the tax reduction factor, a.k.a. HB 920, reduces that preliminary liability by a percentage. The annual rate at which property values increase in each local government's territory determines how much this percentage reduction will equal each year.

The reduction is designed to decrease taxes by exactly the amount by which the higher property values would increase them. When property values in the tax base go up, applying the same tax rate to those higher values would mean a higher tax bill. The HB 920 tax reduction exactly offsets that increase. The amount remaining as tax liability after the HB 920 reduction is called "taxes charged and payable."²

² A second tax credit reduces tax liability on Class 1 residential and agricultural property by an additional 10%. This is commonly known as the "rollback." Further, in the case of certain owner-occupied residences, a third reduction of 2½% occurs. A fourth reduction, the "homestead exemption," reduces the taxes charged against property owned by lower income elderly or disabled homeowners. The state reimburses local governments for the revenue lost from these rollbacks and the homestead exemption. Since the rollbacks and the homestead exemption occur after the computation of HB 920 reductions, they fall outside the scope of this discussion. Generally, these rollbacks do not complicate public finances to the same extent caused by HB 920's provisions.

House Bill 920 Historical Background

Ohio's Constitution has required uniform taxation of property since 1851. In 1931, an amendment excepted tangible personal property from that requirement so that uniform taxation rules only applied to real property.³

At some point, the practice began by which only a “fractional assessment” of real property occurred. County auditors assessed property at some percentage of its true or market value rather than at the full market value.

During the 1960s, a series of lawsuits worked their way up to the Ohio Supreme Court. These legal actions generally are referred to as the “Park Investment cases” because the Park Investment Company returned to the court four times to obtain relief from unequal or “non-uniform” assessments. In the Park Investment and similar cases, owners of commercial property proved that county auditors assessed commercial real estate at 40% or 50% of market value while they assessed residential and agricultural property at 30% or less of market value.

The Ohio Supreme Court ruled that each county auditor must “equalize” property assessments. The constitutional principal of uniform taxation of real property means that the same assessment percentage must apply to all real property. By the mid-1970s, after a period of legislative and administrative foot-dragging, the state began to enforce uniform assessments at 35% of market value. This meant that the assessment percentage decreased for commercial and industrial property but increased for residential property – lowering taxes for business property and increasing them for homeowners.

The equalization of real property assessment occurred at a particularly unfortunate time. Beginning in 1968, the economy generally entered one of the worst inflationary periods in modern history. By the time that the county auditors finally began to equalize assessment percentages in 1974, the general inflation rate exceeded 8%. Inflation in housing values matched or exceeded inflation in the economy generally.

The combination of court-ordered increases in assessment percentages plus rapidly rising home values meant higher tax liability for most homeowners and created the conditions for a taxpayers' revolt. As some of the large counties in northeastern Ohio brought in the results of equalized reappraisals in the summer of 1976, the situation reached crisis proportions. In this tense atmosphere, the legislature looked for a solution to the problem of “unvoted” tax increases on homeowners. House Bill 920 contained that solution with its complicated system for reducing taxes owed.

³ “Real property” is defined as land and buildings. For many years divided tangible personal property into two general categories: property used in business such as manufacturing machinery, inventory or office equipment and machinery and equipment used by public utilities. Legislation in 2005 phased out the tax on business personal property over a five-year period, leaving only public utility tangible personal property. The exception of tangible personal property from the Uniform Rule did not mean that such property was no longer taxed. Rather, the exception allowed the state legislature more discretion in how to tax personal property, although the Constitution still required that tax rates over 10 mills on personal property receive voter approval.

For 47 years, HB 920's tax reduction factors have continued to reduce taxes in proportion to increases in property value. Indeed, HB 920 did solve the problem faced by the legislature in the summer of 1976. However, the solution to one problem created other public policy issues.

A Little More Historical Detail

Before HB 920, Ohio law did provide a check against the effects of inflation in property values. The law was commonly called the "millage rollback." It provided an adjustment by which the county directly would reduce tax rates in proportion to increases in all property value. However, this mechanism had a flaw, by reducing tax rates directly, the "millage rollback" cut both real and personal property taxes. Since personal property values rose slowly, if at all, reductions in the tax rate applicable to all property provided net reductions to personal property while real property owners still paid more. For this reason, HB 920 repealed the millage rollback system in favor of percentage reductions targeted at real property only. As a result, after 1976, personal property no longer received rate reductions based on increases in real property values caused by reappraisals.

The first few years after HB 920's enactment revealed a similar problem within the different types or "classes" of real property. The initial years of property reappraisal showed that under the equalized system, in which the county auditor applied the same assessment percentage to all real property, residential real property grew in value significantly faster than did business real property. As a result, when HB 920 averaged its reduction factor formula over all real property, the faster growth in residential values meant greater reductions for business property than it needed based on its growth rate and residential property did not receive enough reduction to offset reappraisals.

In response, the legislature proposed, and the voters ratified, a constitutional amendment in 1980. This amendment created a very narrow exception to the uniform rule of real property taxation. The new amendment permitted separate tax reduction factors for residential and agricultural real property (Class 1) and all other real property (Class 2). As a practical matter, "all other" real property means business, commercial and industrial real property.

How the State Computes the Tax Reduction Factors

Unfortunately, no easy way exists to explain the details of how the HB 920 formulas reduce taxes. But this section will dig a little deeper into the tax reduction factor mechanism to provide a more detailed presentation of how the system works.

Tax reduction factors required by HB 920 apply to all real property taxes unless the law provides for a specific exception. The Ohio Constitution limits the exceptions to:

- Unvoted mills (or "inside" mills) – the first 10 mills levied by the authority of the Constitution.
- Taxes authorized by the charter of a municipal corporation (i.e. a city/municipality)
- Taxes levied at whatever rate is needed to pay the principal and interest on bonds (An example would be a school bond levy for the construction of school buildings.)

- Taxes levied at whatever rate is needed to produce a specified dollar amount (This is commonly referred to as a “fixed sum” levy. The only two examples of the fixed sum levy exception in actual use are school emergency levies and school substitute levies, which can combine existing emergency levies into a single “fixed sum” levy.)
- Taxes levied to produce a minimum percentage of operating funds for a given class of political subdivision (The only examples of this exception in use are the 20-mill minimum school operating levy and a two mill minimum for joint vocational school districts. These are commonly referred to as the “20-mill floor” and “2-mill floor,” respectively. It is important to note that the 20-mill floor calculation only includes inside millage devoted to school operating purposes and voted current expense operating levies, but not emergency levies, substitute levies, bond levies or permanent improvement levies. This issue is discussed in more detail below.)

After these exceptions, the HB 920 tax reduction factors still apply to a large number of voted operating levies (these are also known as current expense tax levies or “fixed rate” levies). They apply to the taxes levied by every type of political subdivision and apply separately to each individual tax levy.

For examples of how different local entities contribute to the real property tax rate and how HB 920 does not apply to certain tax levies, Tables 1 and 2 look at the tax levies in effect for two school districts.

The first column in both Tables 1 and 2 show the political subdivision for which a tax is levied. The second shows the year in which the voters approved the tax. (“0” means an unvoted tax – a.k.a. inside millage). The third column shows each levy’s purpose. The final three columns show the rate as originally approved, the effective rate on residential property (Class 1), and the effective rate on business property (Class 2). The effective rate is the rate after the tax reduction factor has been applied. (Effective rates will be discussed further below.)

Table 1 shows the levies – voted and unvoted – in place as of December 31, 2022, in the School District #1 taxing district. The rows highlighted in gray in Table 1 indicate levies to which HB 920 does not apply. The “unvoted” levies for the County (1.92 mills), School District #1 (3.02 and 2.14 mills) and the City (0.30, 0.97, 1.35 and 0.30 mills) reflect the 10.0 inside mills in place in this taxing district. In addition, the School District #1 has two 4 mill bond issues and a 17.72 mill substitute levy to which HB 920 also does not apply (because these are all “fixed sum” levies). Finally, the City has three “charter” levies and a fire service bond issue to which HB 920’s reduction factors are not applied.

Table 1: Example of Tax Rates –School District #1 for Tax Year 2022 (Mills rounded to nearest one-hundredth of a mill)

Political Subdivision	Year Levy Approved	Purpose or Use of Tax Levy	Original Rate Approved in Mills	Residential Effective Mills	Business Effective Mills
County	0	Unvoted General Fund	1.92	1.92	1.92
County	1985	Mental Health	0.50	0.19	0.29
County	2000	Develop. Disabilities	2.00	1.33	1.68
County	2004	Develop. Disabilities	1.00	0.78	0.84
County	2006	Mental Health	1.00	0.79	0.84
County	2008	Children’s Services	2.00	1.58	1.68
County	2010	Senior Citizens	1.30	1.03	1.09
School District #1	0	Unvoted General Fund	3.02	3.02	3.02
School District #1	0	Unvoted Perm. Improve.	2.14	2.14	2.14
School District #1	1976	Current Expense	18.27	16.99	17.35
School District #1	2003	Bond	4.00	4.00	4.00
School District #1	2010	Substitute Oper. Levy*	17.72	17.72	17.72
School District #1	2014	Bond	4.00	4.00	4.00
School District #1	2014	Permanent Improvement	0.26	0.19	0.25
County JVSD	1976	Current Expense	1.43	1.43	1.43
County JVSD	1977	Current Expense	0.50	0.50	0.50
City	0	Unvoted Fireman’s Fund	0.30	0.30	0.30
City	0	Unvoted General Fund	0.97	0.97	0.97
City	0	Unvoted General Fund	1.35	1.35	1.35
City	0	Unvoted Police Pension	0.30	0.30	0.30
City	1976	Charter Current Expense	1.00	1.00	1.00
City	1976	Charter Current Expense	1.83	1.83	1.83
City	1976	Charter NCY Fund	0.15	0.15	0.15
City	2022	Fire Service Bond	1.00	1.00	1.00
Library	2010	Current Expense	0.75	0.58	0.63
County Metroparks	2022	Metro Parks	0.70	0.70	0.70
Total			69.41	65.79	66.97
School District #1 Total			49.41	48.06	48.48
Non-School Total			20.00	17.73	18.49

* The 2010 substitute operating levy combined and replaced the 5-year 13.4 mill emergency renewal levy passed in May 2005 and the 3-year 4.42 mill emergency renewal levy passed in November 2007.

The totals in the bottom three rows of Table 1 indicate the “composite” rate applicable to a property in this taxing district. Thus, the total the “original” pre-HB 920 tax rate tax in the School District #1 taxing district equaled 69.41 mills, while the effective tax rate on a house or farm in this taxing district is 65.79 mills in 2022. The total “original” School District #1 tax rate is 49.41 while the effective tax rate on homeowners and farmers in is 48.06 mills. Finally, the total “original” non-school tax rate in this taxing district is 20.00 mills while the effective tax rate on residential and agricultural property is 17.73 mills. The fact that the effective tax rates for Class 1 and Class 2 property are so close to the original voted tax rates is an indication of the relatively modest impact of the HB 920 reduction factors in this taxing district.

Table 2 shows similar data as in Table 1 only this time the data is shown for the School District #2 taxing district. Again, the rows highlighted in gray in Table 2 indicate levies to which HB 920 does not apply. The “unvoted” levies for the County (1.92 mills), School District #2 (6.49 mills) and the Township (1.00 and 0.59 mills) reflect the 10.0 inside mills in place in this taxing district. In addition, School District #2 has two bond issues (1.50 and 1.62 mills) to which HB 920 also does not apply because these are “fixed sum” levies. Because there is no municipality in this taxing district there are no municipal charter levies as was the case in the School District #1 taxing district shown in Table 1.

Table 2: Example of Tax Rates –School District #2 for Tax Year 2022 (Mills rounded to nearest one-hundredth of a mill)

Political Subdivision	Year Levy Approved	Purpose or Use of Tax Levy	Original Rate Approved in Mills	Residential Effective Mills	Business Effective Mills
County	0	Unvoted General Fund	1.92	1.92	1.92
County	1985	Mental Health	0.50	0.19	0.29
County	2000	Develop. Disabilities	2.00	1.33	1.68
County	2004	Develop. Disabilities	1.00	0.78	0.84
County	2006	Mental Health	1.00	0.79	0.84
County	2008	Children’s Services	2.00	1.58	1.68
County	2010	Senior Citizens	1.30	1.03	1.09
School District #2	0	Unvoted General Fund	6.49	6.49	6.49
School District #2	1976	Current Expense	15.88	2.51	4.13
School District #2	1978	Current Expense	3.80	0.60	0.99
School District #2	1985	Current Expense	5.90	1.82	2.32
School District #2	1988	Current Expense	5.67	1.98	2.64
School District #2	1991	Current Expense	5.90	2.78	3.67
School District #2	1996	Current Expense	6.50	3.54	4.73
School District #2	2000	Bond	1.50	1.50	1.50
School District #2	2000	Current Expense	4.90	3.04	3.88
School District #2	2005	Bond	1.62	1.62	1.62
School District #2	2005	Current Expense	5.60	4.25	4.43
School District #2	2013	Current Expense	3.50	2.66	2.77
School District #2	2013	Permanent Improvement	2.00	1.52	1.58
County JVSD	1976	Current Expense	1.43	1.43	1.43
County JVSD	1977	Current Expense	0.50	0.50	0.50
Township	0	Unvoted - Road & Bridge	1.00	1.00	1.00
Township	1999	Fire & EMS	3.00	1.55	1.24
Township	2009	Police & EMS	3.00	2.23	1.60
Township	2010	Fire & EMS	4.00	2.98	2.13
Township	2017	Fire	3.50	2.77	1.87
Township	0	Unvoted General Fund	0.59	0.59	0.59
Library	2010	Current Expense	0.75	0.58	0.63
County Metroparks	2022	Metro Parks	0.70	0.70	0.70
Total			97.45	56.27	60.76
School District #2Total			69.26	34.32	40.74
Non-School Total			28.19	21.95	20.02

The totals in the bottom three rows of Table 2 indicate the “composite” rate applicable to a property in this taxing district. Thus, the total the “original” voted tax rate tax in the School District #2 taxing district equaled 97.45 mills, while the tax rate on a house or farm in this taxing district is only 56.27 mills in 2022 which reflects the significant impact of the HB 920 reduction factors. Table 2 also shows that the total “original” non-school tax rate in School District #2 is 28.19 mills while the effective tax rate on residential and agricultural property is 21.95 mills.

The biggest difference between School District #1 and School District #2 is that School District #1 is at the 20-mill floor and School District #2 is not. The result of this is that while the total authorized school millage in School District #2 is 69.26 mills the overall effective Class 1 school millage is just under half that amount at 34.32 mills. In contrast, in School District #1 the total authorized school millage is 49.41 mills, but the Class 1 effective millage rate is only slightly lower at 48.06 mills. Thus, while School District #1’s voted school tax rate is lower than that in School District #2, the actual school effective millage rate on residential and agricultural property is higher in School District #1 than in School District #2.

The 20-mill floor is discussed in more detail later in this report.

Table 3 below provides a second example of how HB 920 works by showing how the tax reduction factor would apply to a 2.0 mill property tax when a taxing district experiences a 15% increase in residential property value.

Table 3: Example of a HB 920 Tax Reduction Factor on a Two Mill Tax Levy

Year	Assessed Value	Tax Levy Voted Rate	Tax Revenue Before Reduction	Taxes Charged & Payable	Effective Tax Rate	Tax Reduction Percent
Base Year	\$100,000,000	2.0 Mills	\$200,000	\$200,000	2.0 Mills	0.0%
Reappraisal	\$115,000,000	2.0 Mills	\$230,000	\$200,000	1.74 Mills	-13.0%
	Base Year Value*	% Increase	New Value	Base Taxes	New Taxes	% Change
House 1	\$100,000	7.5%	\$107,500	\$200	\$187	-6.5%
House 2	\$100,000	15%	\$115,000	\$200	\$200	0.0%
House 3	\$100,000	25%	\$125,000	\$200	\$217.50	8.75%

*Base Year Value is the taxable value of the home after the 35% assessment percentage has been applied. Tax amounts shown are for the 2.0 mill levy only.

Notice that the actual voted tax rate remains at 2.0 mills in both years as does the amount of tax revenue collected. However, the effective tax rate in the reappraisal year would equal about 1.74 mills after the HB 920 tax reduction factors are applied⁴.

Furthermore, it is important to note that the *tax reduction computations apply in the aggregate*. They do not apply property by property. For example, Table 3 also shows that if an individual homeowner's residence was reappraised with a 15% increase in value, that homeowner would pay exactly the same taxes in the reappraisal year as in the base year. However, if that specific residence increased in value by 25%, the owner would pay about 9% more taxes in the reappraisal year than in the base year. If a taxpayer's reappraised home value grew at a rate lower than the 15% average rate, that taxpayer would experience a net decline in property taxes owed. A property which increased in value by 7.5% would experience a 6.5% reduction in property taxes. (Note that it is not uncommon for the values of similar houses in different neighborhoods of a taxing district to increase at different rates as result of specific characteristics and sales patterns across neighborhoods.)

How Complicated Is It? The Number of Computations

Using a unique tax reduction percentage for each tax levy clearly imposes a complicated task. In the School District #1 example, as mentioned above, HB 920 does not apply to 14 of the 26 property taxes levied because they are unvoted mills within the 10 mill limit, a municipal charter levy, an emergency school levy, or a tax levied at the rate necessary to pay principal and interest on a bond issue. This leaves 12 different levies for which the state must compute individual HB 920 reductions. Additionally, in School District #2 shown above HB 920 did not apply to 6 of the levies meaning that the tax reduction calculations have to be made for 24 levies. And, of course, each different tax requires two separate computations – one for Class 1 residential and agricultural property and another for Class 2 commercial and industrial property. When multiplied by 4,000 taxing districts, the scope of the task becomes clear.

While technically HB 920 does not change the tax rate (see footnote 4), the most convenient method for expressing the effect of the tax reduction factors is to translate the percentage into an “*effective tax rate*.” For example, a levy approved by voters at 10 mills in 2012 might produce only the amount of revenue equal to 6.99 mills by 2022. The effective tax rate for 2022 would be 6.99 mills.

Over time, the difference between the original tax levy rate and the effective rate tends to increase. This can be seen in Table 2 by comparing School District #2's 3.8 mill school levy passed in 1978 to the 3.5 mill school levy passed in 2013. The 1978 levy only has a Class 1 effective millage rate of 0.60 mills while the 2013 levy has a Class 1 effective millage rate of 2.66 mills. Thus, as a county passes

⁴ Note that technically there is no such thing as the “effective Class 1 (or Class 2) tax rate.” HB 920 retains the voted tax rate and then applies the tax reduction factors after every reappraisal or 3-year property value statistical update. However, comparing the effective tax rate to the voted tax rate is the easiest way to understand the impact of HB 920 over time, and it is easy to make this calculation by dividing tax revenue by total property value. Furthermore, it is necessary to compute the effective tax rate to calculate the 20-mill floor for school districts.

through each reappraisal or update, the new tax reduction adjustment tends to cause the effective tax rate to depart further and further from the original tax rate authorized.⁵

Note also that emergency, substitute and bond levies work differently. They are sometimes referred to as “fixed sum” levies because they raise a constant amount of money each year and, as mentioned above, are exempt from the HB 920 reduction factors. As a result, the tax rate charged applies equally to all classes of property. This can be seen by looking in Table 1 at School District #1’s bond and substitute levy tax rates and at School District #2’s bond levy rates in Table 2.

How Complicated Is It? The Treatment of New Construction

House Bill 920 adjustments do not offset changes in valuation caused by new construction. This is because HB 920 only applies to property that existed in both the preceding year and the year for which the state computes the adjustment. This means that HB 920 excludes the value of new construction from the computations. However, the effective tax rate applicable to any new construction incorporates the adjustments applicable to all other property. For example, if a home existed in School District #1 in 2021 and 2022, its effective tax rate in 2022 would equal 65.79 mills. If a new home worth \$214,000 were built in School District #1 in 2022, the effective tax rate applicable to that home also would equal 65.79 mills. The exclusion of new construction from the HB 920 adjustments simply means that the district’s tax base would have new taxable value of \$75,000 (35% of the home’s \$214,000 market value) added by that new construction.

The addition of new valuation in this way *does* cause growth in tax revenues. But a mistaken notion about the benefit of additional tax revenue from new construction has arisen. Some people believe the new construction only augments the tax base in the year of construction and then (somehow) HB 920 cancels out the addition of the new value in subsequent years. In fact, new construction permanently increases the base amount of revenue allowed by the HB 920 formulas. The increase realized in the year of construction becomes built into the base year for purposes of the tax reduction computations in the next year.

Example of House Bill 920

House Bill 920 has done largely what its sponsors intended: it has controlled unvoted tax increases on real property. Table 4 shows an example of how much protection homeowners have received from HB 920 adjustments.

⁵ The tax reduction percentage tends to grow because valuations tend to grow. What happens if aggregate property values fall? Economic conditions from 2008-2012 after the 2008/09 recession made this more than a theoretical question. In fact, the tax reduction factor computation goes both ways. If values fall, the percentage reduction will become smaller so that the tax produces a constant amount of revenue. Under such circumstances, the effective rate of a tax would increase. However, such changes in the tax reduction factors cannot cause the effective tax rate to exceed the rate originally authorized by the voters.

Table 4: Example of School District #2 1976 School Taxes in 1976 and in 2022 as Applied to a Residence*

Tax Year	Market Value	Taxable Value	# of 1976 Voted Mills	Taxes Before HB 920 Reductions	Taxes After HB 920 Reductions	# of Effective 1976 Mills
1976	\$40,000	\$14,000	15.88 mills	\$222	\$222	15.88 mills
2022	\$253,000	\$88,550	15.88 mills	\$1,406	\$222	2.51 mills

*Amounts rounded to nearest dollar. Illustration assumes the house value increased at the average rate in the school district over the period.

The market value of a home in School District #2 increased by an average of about 6.33 times from 1976 to 2022. (1976 is the first year in which the tax reduction factors applied.) In 1976, the school district levied 15.88 voted mills for current expenses. That tax rate would have raised \$222 on a house with a market value of \$40,000. By 2022, the value of the same house had increased to \$253,000. Without HB 920, the 1976 tax rate of 15.88 mills would have charged \$1,406 against that property. Taxes would have increased by \$1184 - almost 5.5 times - and those increases would have occurred automatically without any voter approval.

Instead, HB 920 adjustments continuously offset increases in the value of the house, keeping the taxes raised from those original mills the same from 1976 to 2022. The cumulative effect was that the original 15.88 mills had an effective tax rate of only 2.51 mills by 2022.

However, while HB 920 had as its purpose to stop unvoted or automatic tax increases caused by the reappraisal of real property, its control of automatic tax increases comes at the price of frequent ballot activity.

For example, between 1976 and 2022, voters in the School District #2 approved additional taxes on ten different occasions – an average of a new tax about every four and a half years. Eight of these increases provided additional revenue for current expenses, two provided additional money for bond issues and the 2013 levy was combined levy which also provided funding for permanent improvements.

What has been the effect of these additional levies? The first row of Table 5 shows what would have happened by 2022 if HB 920 were never enacted. The 15.88 voted mills levied in 1976 for current expenses would have continued to apply at that full rate in 2022. The taxes charged on the house in the example would have equaled \$1,406.

The second row shows the actual taxes charged against the example residence in 2022. In the ten tax levy elections, voters approved a total of 46.89 additional mills. The effective rate of those additional mills by 2022 equaled 25.32 mills. Combined with the 2.51 mill effective rate of the original 15.88 mills, the total effective rate in 2022 equaled 34.32 mills.

Table 5: Example of School District #2 2022 School Taxes as Applied to a residence without House Bill 920’s Enactment and as Actually Computed

	Market Value	Taxable Value	Number of Effective Mills	Taxes Charged
Without HB 920	\$253,000	\$88,550	15.88 mills	\$1,406
Actual 2022	\$253,000	\$88,550	34.32 mills	\$3,039

Therefore, over a period of 46 years, voted school taxes in School District #2 increased by 18.44 mills (more than doubling). That represents an increase in effective taxes of a little over 0.40 of a mill per year.

At the same time, the school district faced multiple elections, with the attendant expense of energy and other resources, on average about once in four and a half years to obtain this increase in taxes. In the end, taxpayers approved higher taxes than they would have paid without the controls imposed by HB 920.

In this regard, School District #2 provides an excellent example of the primary effect of HB 920 in many of Ohio’s school districts – significant reliance on placing levies on the ballot for voter approval. From 1976 through 2022, 12,560 school operating levies were on the ballot, 52.9% of which were approved by voters.

Statewide Effects of House Bill 920

Table 6 provides a statewide perspective on the effects of HB 920. Table 6 uses state totals compiled from district-by-district data beginning in 1975 and following at eight-year intervals (with the exception of including 2011 in order to reflect the impact of the 2008/2009 recession on property values). Ideally, Tables 6 and 7 would show changes in six-year intervals so that they occurred over consistent reappraisal cycles, however that data was not available.

Table 6 shows how effectively HB 920 has worked over time to protect residential and agricultural taxpayers as the state average effective tax rate on Class 1 property increased by only about 4.5 mills from 1975 to 2022. The effective tax rate on Class 2 real property increased by about 14 mills over the same period.

Table 6: State Effective Rate on Real Property, 1975 – 2022

Year	Class 1 Value	Class 1 Rate in Mills	Class 1 Taxes	Class 2 Value	Class 2 Rate in Mills	Class 2 Taxes
1975	\$24.9 billion	28.64	\$712.4 million	\$9.9 billion	28.83	\$289.9 million
1983	\$50.2 billion	24.68	\$1,238.4 million	\$17.4 billion	28.13	\$488.2 million
1991	\$71.8 billion	28.86	\$2,073.2 million	\$28.1 billion	31.67	\$889.9 million
1999	\$118.6 billion	29.19	\$3,461.9 million	\$38.0 billion	35.21	\$1,337.1 million
2007	\$184.6 billion	29.81	\$5,502.5 million	\$51.7 billion	36.40	\$1,883.6 million
2011	\$179.4 billion	34.11	\$6,120.2 million	\$52.0 billion	40.95	\$2,128.5 million
2015	\$183.6 billion	36.00	\$6,610.0 million	\$50.9 billion	44.68	\$2,272.4 million
2022	\$242.3 billion	33.15	\$8,032.1 million	\$62.3 billion	42.89	\$2,673.4 million

Source: Ohio Department of Taxation Class 1 = Residential/Agricultural Property. Class 2 = All Other Real Property.

Table 7 shows the percentage increases implied by the numbers in Table 6. Tables 6 and 7 show that an initial reduction in effective tax rates occurred in the first eight years of HB 920. After that, the other periods all show at least small increases in effective tax rates for both classes of real property until the most recent 2015-2022 time period when effective tax rates fell slightly on both Class 1 and Class 2 property. Over the entire period of 47 years, the effective tax rate on residential property increased by 16% while the effective tax rate on Class 2 property increased by 49%.

Table 7: Percentage Change in Real Property Values, Tax Rates, and Taxes, 1975 – 2022

Time Period	Class 1 Value	Class 1 Tax Rate	Class 1 Taxes	Class 2 Value	Class 2 Tax Rate	Class 2 Taxes
1975 to 1983	102%	-14%	74%	75%	-2%	68%
1983 to 1991	43%	17%	67%	61%	13%	82%
1991 to 1999	65%	1%	67%	35%	11%	50%
1999 to 2007	56%	2%	59%	36%	3%	41%
2007 to 2011	-3%	14%	11%	1%	13%	13%
2011 to 2015	2%	6%	8%	-2%	9%	7%
2015 to 2022	32%	-8%	22%	22%	-4%	18%
1975 to 2022	873%	16%	1027%	529%	49%	822%

If the effective rate on Class 1 property had remained constant since 1975, the taxes charged against that property in 2022 would have equaled \$6,939.5 million. The taxes actually charged against Class 1 property in 2022 equaled \$8,032 million, an increase of 16%. *Over that same period of time inflation has been 435%.*

Of course, changes in both property values and tax rates will differ across school districts. Previous analysis based on data from the Ohio Department of Taxation showed that 336 districts saw an increase in the effective Class 1 tax rate between 1975 and 2007, averaging 5 mills; 271 had a

decrease, averaging 4.87 mills; and five districts stayed the same. The lack of availability of the original 1975 data prevents the updating of this analysis through 2022, however.

Special Problems for School Districts Caused by House Bill 920

While HB 920 reduces the effective tax rate charged by all political subdivisions, it makes the most serious impact on school districts. Most other types of local government have other sources of growing revenue. Counties have local sales taxes; municipalities have the municipal income tax. Some local governments – such as townships – may rely as much as school districts on the real property tax in relative terms, but their total revenue needs are much less.

Thus, HB 920 poses a special problem for school districts for several reasons.

- Schools' revenue needs are greater in absolute terms. Education is highly labor intensive, and wages have increased along with general inflation. Moreover, in the 47 years since 1976, expectations about what schools can and should do have increased. For example, Federal standards have mandated additional spending for special needs pupils and in recent years there has been a growing understand of the importance of third grade literacy, the need for social and emotional support services for students and the role of summer learning loss as it relates to student achievement.
- While schools have the authority to seek income taxes as a replacement or alternative to property taxes, voters have not favored that tradeoff in many school districts. Currently only 220 (36%) of Ohio's 609 school districts, most of them in rural areas, have adopted an income tax.
- HB 920 adjustments interact with the formula that determines state aid for school districts. Interaction between the state education aid formula and HB 920 has had two general consequences. On the one hand, HB 920's *de facto* creation of effective tax rates separate from the tax rates originally authorized has not only restricted inflationary growth in property taxes, but has also reduced state aid. By utilizing property values instead of property tax revenues, the state aid formula essentially presumes that schools receive revenue from property taxes almost as though HB 920 simply did not exist. This so-called "phantom revenue" costs school districts by reducing state aid payments. On the other hand, the negative impact on both state and local revenue has led school districts to explore options which allow for local revenue growth within the confines of HB 920.

1) 20-Mill Floor

The Ohio Constitution permits the legislature to fix a minimum tax rate for any type of local government, and legislation has designated a minimum rate of 2% or 20 mills for school districts. This minimum tax means that when HB 920 would force the effective tax rate below 20 mills, a second adjustment raises it back up exactly to 20 mills. Because the minimum tax rate fixes a level of taxation below which the effective rate may not go, its popular name is the "20-mill floor."

The 20-mill floor essentially short-circuits the tax-reducing feature of House Bill 920. When a reappraisal or update occurs in a school district "at the floor," increases in value do translate into

higher taxes for taxpayers and more revenue for the school district. For this reason, a school district at the floor is sometimes said to possess 20 “growing” mills. Taxes on real property in those districts grow when valuations increase.

Currently, nearly two-thirds of Ohio’s school districts benefit from the minimum effective rate provision. As of 2022, 373 districts were at the 20-mill floor with respect to Class 1 property and 126 districts were at the 20-mill floor for Class 2 property. Ten of the 126 districts at the Class 2 floor are not at the 20-mill floor for Class 1 property, so a total of 383 districts are currently at the 20-mill floor for one or both types of real property. (Note that these computations define any district with inside plus voted current expense millage at less than 20.01 mills to be at the floor). Furthermore, the number of districts at the 20-mill floor for Class 1 and/or Class 2 property will likely increase in 2023 after this year’s property reappraisal and statistical update adjustments are made.

2) Emergency School Levies Outside 20-Mill Floor

It is also important to understand the relationship between the 20-mill floor and emergency school levies. Voters must approve an emergency school levy, just as they must all other taxes above the 10 mill limitation. However, emergency levies apply at whatever rate necessary to raise a specific dollar amount. The voters approve that dollar amount when the emergency levy proposal appears on the ballot. An emergency levy can apply for up to five years. It can never grow – it never raises more than the originally authorized number of dollars.

An emergency levy benefits from an explicit exception from HB 920, though. It does not count as a current expense levy. When the state computes the HB 920 tax reduction adjustment, it ignores any emergency school levies. The logic for excluding emergency levies from the 20-mill floor is that because emergency levies are for a fixed sum HB 920 need not apply as the goal of HB 920 is to limit revenue growth from voted levies which emergency levies do by their inherent design.

Example of the 20-Mill Floor

Table 1 showed the property taxes in effect in the School District #1 taxing district. Table 8 eliminates the county, city, municipality, joint vocational school district, library and metroparks levies, leaving only the levies in place for School District #1.

Table 8: Example of Tax Rates - School District #1

Political Subdivision	Year Levy Approved	Purpose or Use of Tax Levy	Original Rate Approved in Mills	Residential Effective Mills	Business Effective Mills
School District #1	0	Unvoted General Fund	3.02	3.02	3.02
School District #1	0	Unvoted Perm. Improve.	2.14	2.14	2.14
School District #1	1976	Current Expense	18.27	16.99	17.35
School District #1	2003	Bond	4.00	4.00	4.00
School District #1	2010	Substitute Oper. Levy*	17.72	17.72	17.72
School District #1	2014	Bond	4.00	4.00	4.00
School District #1	2014	Permanent Improvement	0.26	0.19	0.25
School District #1 Total			49.41	48.06	48.48
Bond & PI Total			10.40	10.33	10.39
Operating Total			39.01	37.73	38.09
School District #1 Floor Total			21.29	20.01	20.37

Table 8 shows that School District #1’s total approved (voted + inside millage) is 49.41 and that the total effective Class 1 millage rate is 48.06 mills and the total effective class 2 millage rate is 48.48 mills. Of these totals, School District #1 has 10.40 voted bond and permanent improvement mills which translate into 10.33 and 10.39 effective Class 1 and Class 2 mills, respectively. This leaves School District #1’s total approved operating millage at 39.01 mills, with effective Class 1 operating millage of 37.73 mills and effective Class 2 operating millage of 38.09 mills.

However, despite the operating millage figures just cited, Table 8 shows that School District #1 is at the 20-mill floor for Class 1 property. This is because the only voted operating levies that School District #1 has approved since 1976 were emergency levies, which were subsequently consolidated into a single 17.72 mill substitute levy in 2010. Because emergency and substitute levies are fixed sum levies they are not included in the 20-mill floor calculation (the reason for this is that a fixed sum levy by definition does not raise more revenue after reappraisal so it is thus exempt from the HB 920 tax reduction factors which were designed expressly for that purpose).

Thus, only School District #1’s 3.02 unvoted (inside) mills for operating purposes and the 18.27 voted operating mills in place in 1976 when HB 920 took effect are included in the calculation of the 20-mill floor (these rows are highlighted in blue in Table 8). Because the 18.27 voted mills from 1976 have been reduced by the HB 920 tax reduction factors over time and in 2022 are charged against residential property at the effective rate of 16.99 the total of 3.02 inside mills plus 16.99 effective voted mills sums to 20.01 mills and means that School District #1 is at the 20-mill floor for Class 1 residential and agricultural property. School District #1 is slightly above the 20-mill floor for Class 2 property because the 18.27 current expense mills from 1976 have only been reduced to 17.35 mills by HB 920, which places the effective class 2 tax rate for 20-mill floor purposes at 20.37 mills.

3) Permanent Improvement Levies and Unvoted Mills

One other thing that can be seen in Table 8 is that School District #1 has total of 2.4 mills authorized for permanent improvements. Of these mills, 2.14 are in the form of inside millage while .26 of these mills are from a 2014 voted permanent improvement levy. Utilizing a portion of inside millage for permanent improvement purposes can serve two purposes. First, it will provide an ongoing source of revenue for permanent improvements which in most school districts is a recurring expenditure. The fact that 518 of Ohio's 609 school districts (85%) have permanent improvement millage in place as of 2022 suggests that this is a very common experience.

Secondly, utilizing inside millage for permanent improvement rather than operating purposes can also help a district get to the 20-mill floor or keep a district at the floor once it has fallen there through the natural workings of the HB 920 reduction factors. This is because inside millage devoted to permanent improvements is not included in the calculation of the 20-mill floor. Regardless of its impact on the 20-mill floor (if any), utilizing inside mills for PI purposes means that this revenue stream can grow over time, which is important as the cost of maintaining school buildings is subject to inflation just as the cost of repairs and maintenance in the private sector.

Overview of the 20-Mill Floor

Table 9 on the following page provides a summary of the number of school districts at the 20-mill floor for both Class 1 and Class 2 property from 2001-2022. Table 9 shows that the number of districts at the 20-mill floor for both classes of property has increased in each of the last 5 years. Based on reports from county auditors of valuation increases this year it appears that the number of districts at the floor will increase significantly in 2023. Years with the highest and lowest number of districts at the 20-mill floor are shown in **bold** font.

Table 9: # of Ohio School Districts at the 20-Mill Floor from 2001-2022

Year	# of Districts at Class 1 20-Mill Floor	# of Districts at Class 2 20-Mill Floor
2001	277	131
2002	278	124
2003	290	117
2004	298	129
2005	330	165
2006	311	150
2007	305	135
2008	299	128
2009	177	80
2010	166	66
2011	165	54
2012	105	44
2013	158	42
2014	215	45
2015	205	41
2016	235	56
2017	165	58
2018	168	59
2019	207	67
2020	249	69
2021	279	75
2022	343	108

Source: Ohio Department of Taxation school district millage rate files.
 Tabulations based on number of districts at < 20.01 mills.

Table 10 shows the number of districts at the Class 1 20-Mill Floor in 2022 by typology group.

Table 10: # of Ohio School Districts at the 20-Mill Floor in 2022 By Typology

Typology	# of Districts	# At Class 1 20-Mill Floor	% At Class 1 20-Mill Floor
Poor Rural	123	88	71.5%
Rural	106	60	56.6%
Small Town	110	85	77.3%
Poor Small Town	89	57	64.0%
Suburban	77	31	40.3%
Wealthy Suburban	46	7	15.2%
Urban	47	11	23.4%
Major Urban	8	0	0.0%
Outliers	5	4	80.0%
Total	611	343	

The data in Table 10 shows that in 2022 the preponderance of districts at the 20-mill floor for Class 1 property in 2022 are from rural and small town school districts. In fact, 290 (85%) of the 343 total school districts at the floor in 2022 are from the rural and small town typology groups. Another way to look at 2/3^{rds} of the districts in those four typology groups (290 out of 428) are at the 20-mill floor.

Additional data analysis is necessary to determine why such a high proportion of 20-mill floor districts are from the rural and small town areas of the state. The most likely explanation is that urban and suburban school districts typically have higher millage rates than those in rural areas, and the higher millage rates mean that despite the working of the HB 920 tax reduction factors over time, these districts still have effective millage rates above the 20-mill floor.

A second possibility is that most of the districts that utilize the school district income tax are from rural and small town areas. This is typical in agricultural areas where taxpayers may have a lot of land and have an income which is relatively low or highly variable from one year to the next. The school district income tax of course is not included in the 20-mill floor calculation because that only applies to the property tax. As of 2022, 145 (66.5%) of the 218 school district with a school district income tax are at the 20-mill floor for Class 1 property.

Additionally, because property values typically increase more slowly in rural areas the fact that such a high fraction of districts are at the floor is typically not a significant problem in a practical sense. This is because taxpayers in a district at the 20-mill floor are typically subject to 20 “growing” mills. However, if there is not much growth in property values due to reappraisal this means that taxpayers will not experience much growth in their tax bills. (Note that this is another reason why school district income taxes make sense in these areas – revenue will only grow when income grows). Thus, it is only in the last few years when property values have begun to increase in rural areas that the 20-mil floor has become a significant issue.

Conclusion

HB 920 was implemented in the mid-1970s (along with similar measures in many other states, including Proposition 13 in California) in an environment of historically large increases in property values. Since that time, HB 920 has worked effectively to limit inflationary growth in local property taxes at the cost of over 12,500 local school levies and thousands of levies for libraries and other local services. Now, 47 years later, property values are again increasing at unusually high rates, particularly in rural and exurban counties where such increases are especially unusual. Perhaps it is time to consider whether the HB 920 mechanism is the best way of addressing this issue, but before any such reconsideration occurs, it is imperative that the mechanics and implications of this exceptionally complex law are well understood.