

# Understanding your Equalization Study results

Property Valuation and Review District Advisors

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## EQUALIZATION

### **What is Equalization?**

Equalization is the process of comparing sale prices to listed values in each town for a three-year period. These sales and ratios are aggregated (combined) to show the level your town is assessing at, relative to 100% of fair market value (known as the CLA or Common Level of Appraisal). The level of assessment is then applied to your total town assessed values represented on your 411 form to equalize your values to 100%.

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## EQUALIZATION

### Why Do we Equalize?

The equalization process is a statutory obligation of the tax department.

The commissioner of taxes is required to determine the equalized education property tax grand list and coefficient of dispersion (COD) for each municipality in the State. [32 V.S.A. §5405](#). The COD helps to ensure that property valuations within a municipality are equitable.

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## EQUALIZATION

### For Example

If your town was determined to be assessing properties at 80% of fair market value, the equalization process would divide your 411 values by 80% to equalize your town to 100%. **Example: Town 411 equals 1,000,000 divided by .80 equals 1,250,000 of equalized value ( $1,000,000/.80=1,250,000$ ).** Conversely, if your town was determined to be assessing properties at 105% of fair market value, the equalization process would reduce your 411 values by dividing your 411 values by 105% to equalize your town to 100%. **Example: Town 411 equals 1,000,000 divided by 1.05 equals 952,400 of equalized value ( $1,000,000/1.05=952,400$ ).**

These equalized values are then used to determine education liability for school funding so that all towns share equally in that funding.

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## What is Common Level of Appraisal (CLA)?

The Common Level of Appraisal is one of the primary functions and outputs of the equalization study. The CLA represents the level Property Valuation and Review has determined your town to be assessing at relative to 100%. In addition to sales ratios from three years there is a utility ratio applied to equalize utilities and a current use adjustment made.

Any sales study performed by a town would yield a Level of Appraisal (LOA not CLA) because it would be lacking these adjustments.

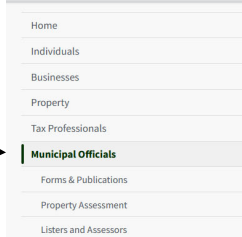
Towns are required by statute to maintain a Common Level of Appraisal that does not exceed 115% and does not go below 85%. If these limits are not met, the Division of Property Valuation and Review will order the town to complete a reappraisal. (Title 32-5405)

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## Where do I get my Equalization Results?

www.tax.vermont.gov

1. Click on Municipal Officials



### 2022 Equalization Sales Study

Every year the Division of Property Valuation and Review (PVR) is required to certify the equalized education property value (EEPV or EGL) and coefficient of dispersion (COD) for each Vermont municipality (32 V.S.A § 5406). To find out more about the equalization study please see the [Introduction to Vermont's Equalization Study](#) or [contact your District Advisor](#).

To get answers to frequently asked questions about tax rates, how they are determined, and to see how the current year property tax rates for your town were calculated, please see our [education property tax resources](#).

See Equalization Study Results

2. Click on 'See Equalization Results'



The results of the Equalization Study accomplish the following:

- Determine education property tax rates
- Determine whether a municipality must undergo a reappraisal
- Determine taxes municipalities pay to the county

### 2022 Equalization Study Results

Equalization Study Results Letter (pdf)

--Select a Town--

Certified Sales Report (pdf)

--Select a Town--

Certified Final Computation Sheet (pdf)

--Select a Town--

[Download the 2022 Equalization Study Results \(.xlsx\)](#)

3. Select your Town, print your Certified Sales Report and your Certified Final Computation Sheet

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## Take out your Certified Final Computation Sheet

Addison 2022 Certified Final Computation Sheet										Addison 2022 Certified Final Listed Value of Contracts and Exemptions and CUSE Values Used in Computations							
Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD	Total Approved VEPC:	Total Grandfathered Exemptions:	Total Municipal Contracts (Owner Pays Ed. Tax):	Total Special Exemptions Value:	Total Current Use Reduction Value:	Total PVF Applied - MGL-EGL:	Total PVF Applied - EGL:
R1	248	69,142,800	0	69,142,800	69,082,800	84.73		81,603,682	81,532,869	15.70	0	0	0	1,299,100	15,246,797	0	0
R2	254	78,910,600	625,300	78,285,300	78,075,300	81.07		97,231,059	96,972,024	14.52	0	0	0	0	0	0	0
MHU	5	121,700	0	121,700	121,700	81.08	C	150,099	150,099	0.00	0	0	0	0	0	0	0
MHL	15	2,655,000	74,500	2,580,500	2,580,500	81.08	C	3,262,007	3,262,007	0.00	0	0	0	0	0	0	0
S1	74	21,962,500	0	21,962,500	21,962,500	81.08	C	27,087,444	27,087,444	18.94	0	0	0	0	0	0	0
S2	14	6,075,455	136,800	5,938,655	5,938,655	81.08	C	7,470,141	7,470,141	0.00	0	0	0	0	0	0	0
C	14	8,180,500	17,000	8,163,500	8,163,500	81.26	T	10,064,254	10,064,254	0.00	0	0	0	0	0	0	0
CA	0	0	0	0	0	0.00	T	0	0	0.00	0	0	0	0	0	0	0
I	0	0	0	0	0	0.00	T	0	0	0.00	0	0	0	0	0	0	0
UE	4	3,650,400	0	3,650,400	4,949,500	95.42	O	3,825,613	5,187,068	0.00	0	0	0	0	0	0	0
UO	0	0	0	0	0	0.00	T	0	0	0.00	0	0	0	0	0	0	0
F	36	14,870,181	3,636,400	11,233,781	11,233,781	81.26	T	17,697,533	17,697,533	0.00	0	0	0	0	0	0	0
O	96	1,392,800	0	1,392,800	1,392,800	81.08	C	1,717,810	1,717,810	0.00	0	0	0	0	0	0	0
W	7	100,000	35,200	64,800	64,800	81.26	T	117,235	117,235	0.00	0	0	0	0	0	0	0
M	64	3,604,867	1,357,100	2,247,767	2,247,767	81.26	T	4,211,557	4,211,557	0.00	0	0	0	0	0	0	0
<b>R1</b>	<b>831</b>	<b>210,666,803</b>	<b>5,882,300</b>	<b>204,784,503</b>	<b>205,813,603</b>	<b>83.80</b>		<b>254,438,435</b>	<b>255,470,041</b>								
Cable:		0	0	0	0	100.00		0	0	0.00							
Inventory:		0	0	0	0	100.00		0	0	0.00							
Machinery & Equip:		0	0	0	0	100.00		0	0	0.00							
TOTAL:		0	0	0	0	0.00		0	0	0.00							
GRAND TOTAL:				<b>\$204,784,503</b>	<b>\$205,813,603</b>	<b>83.80</b>		<b>\$254,438,435</b>	<b>\$255,470,041</b>								
Certified to County:				<b>\$254,438,000</b>													<b>82.80</b>
Certified to State:				<b>\$254,438,000</b>													<b>Townwide COD: 15.37</b>

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## How to Calculate your Education Equalized Value by Category without CUSE Values

Addison 2022 Certified Final Computation Sheet										
Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD
R1	248	69,142,800	0	69,142,800	69,082,800	84.73		81,603,682	81,532,869	15.70

ED Form 411 Listed Value

69,142,800

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Applied Ratio (in decimal format)

0.8473

=

Education Equalized Value

81,603,682

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## How to Calculate Education Equalized Value with CUSE Value

**Addison 2022**  
Certified Final Computation Sheet

Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD
R1	248	69,142,800	0	69,142,800	69,082,800	84.73		81,603,682	81,532,859	13.70
R2	254	78,910,600	625,300	78,285,300	78,075,300	.8107		97,231,059	96,972,024	14.52

Page 2 of Certified Final Computation Sheet

CUSE CLA: **0.9389**

Category	Building Value (1)	Enrolled Land Value (2)	Use Value Divided by CLA (3)	Total CUSE Subtracted from 411 LV (1+2)	Total CUSE Included in EEGL (1+3)
R1	0	0	0	0	0
R2	0	625,300	665,992	625,300	665,992

Education Listed Value Excl. CUSE  
**78,285,300**

Applied Ratio (Decimal Format)  
**.8107**

$(625,300 / .9389 = 665,992)$   
Total CUSE Included in EEGL (1+3)  
**665,992**

Education Equalized Value  
**97,231,059**

$78,285,300 / .8107 = 96,565,067$

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## How to calculate your CLA

State of Vermont - Division of Property Valuation and Review

December 16, 2022 8:02 PM

**Bristol 2022**  
Certified Final Computation Sheet

Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD
R1	929	204,402,400	0	204,402,400	204,102,400	78.96		258,868,288	258,488,349	15.69
R2	215	63,515,700	492,200	63,023,500	62,933,500	90.45		70,240,880	70,141,378	13.54
MHU	81	1,482,800	0	1,482,800	1,482,800	80.04	C	1,852,574	1,852,574	6.55
MHL	114	14,962,500	0	14,962,500	14,902,500	80.04	C	18,693,778	18,618,816	11.88
S1	28	1,481,100	0	1,481,100	1,481,100	80.04	C	1,850,450	1,850,450	23.76
S2	5	747,900	7,900	740,000	740,000	80.04	C	933,577	933,577	0.00
C	67	25,802,100	0	25,802,100	25,802,100	78.96	T	32,677,432	32,677,432	33.97
CA	20	11,935,450	0	11,935,450	12,172,400	78.96	T	15,115,818	15,415,907	0.00
I	6	2,643,800	0	2,643,800	2,643,800	78.96	T	3,348,278	3,348,278	0.00
UE	3	4,939,400	0	4,939,400	5,865,700	89.17	O	5,539,307	6,578,109	0.00
UO	0	0	0	0	0	0.00	T	0	0	0.00
F	10	2,983,000	547,900	2,435,100	2,435,100	78.96	T	3,710,854	3,710,854	0.00
O	15	4,144,900	0	4,144,900	4,144,900	80.04	C	5,178,536	5,178,536	10.60
W	0	0	0	0	0	0.00	T	0	0	0.00
M	115	8,856,600	1,112,300	7,744,300	7,331,200	78.96	T	11,080,532	10,557,356	30.86
<b>1,608</b>		<b>347,897,650</b>	<b>2,160,300</b>	<b>345,737,350</b>	<b>346,037,500</b>			<b>429,000,303</b>	<b>429,351,613</b>	
				Cable: 938,111		0	100.00	938,111	0	
				Inventories: Exempt		0	100.00	Exempt	0	
				Machinery & Equip: Exempt		0	100.00	Exempt	0	
				TOTAL: 938,111		0		938,111	0	
				<b>GRAND TOTAL:</b>	<b>\$346,675,461</b>	<b>\$346,037,500</b>	<b>.81.12</b>	<b>\$430,028,414</b>	<b>\$429,351,613</b>	

Certified to County: \$430,028,000      CLA: **81.12**  
 Certified to State: \$430,028,000      Townwide C&D: **17.18**

"Ratio Source" Definitions:  
 C: Class  
 T: Town-wide  
 O: Override

ED Form 411 Listed Value Total:  
**347,897,650**

Cable: **938,111**

Add all equalized category values + cable = Education Equalized Value Total:  
**430,028,414**

CLA: **81.12**

$347,897,650 + 938,111 = 348,835,761$

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## Take out your Certified Final Sales Report

State of Vermont - Division of Property Valuation and Review      Certified Final Sales Report  
 Fairfax      Benton Mitchell      \*\*\* Equalization Study - 2022 \*\*\*  
 Sales Between: 4/1/2019 and 3/31/2022

Study created by [Christie.Wright@vermont.gov](mailto:Christie.Wright@vermont.gov) on 12/5/2022 at 12:15 PM.

R1 - Residential with less than 6 acres											
Doc ID	SPAN	Buyer	Seller	Acres	Sale Date	Sale Price	Listed Value	Ratio	T	C	Cat
L966905856	210-066-10059	154 PHEASANT LLC	REED MARK	0.51	11/1/2019	342,500	407,300	118.92			
Location: 59 VILLAGE VIEW ROAD											
L1411325952	210-066-12147	ADAMS KYLE	FRANKLIN SOUTH LLC	0.27	9/28/2020	304,900	310,600	101.87			
Location: 56 OLD ACADEMY STREET, #101											
L74600448	210-066-12098	ANDERSON JASON	SENESEC DALE	1.78	3/20/2020	425,000	484,400	113.98			
Location: 9 WOODS EDGE ROAD											
L20516864	210-066-11978	AVRES RYAN	STURGEON PATRICK	0.57	6/12/2019	293,500	352,700	120.17			
Location: 15 ANDRON ROAD											
L1232219968	210-066-11753	BABYAK MICHAEL	MAGLARIS WILLIAM	2.23	10/18/2019	410,000	479,700	117.00			
Location: 42 BREWSTER ROAD											
L1621762048	210-066-10057	BADGLEY DANIEL	HOWARD FAMILY TRUST ...	0.75	9/25/2020	275,000	288,600	104.95			
Location: 116 BUCK HOLLOW ROAD											
L830754816	210-066-11416	BAKIR LUAY	IZAK JEFFREY	0.52	7/12/2019	360,000	422,500	117.36			
Location: 68 VILLAGE VIEW ROAD											
L905072640	210-066-11993	BARTLEY JEFFREY	SAXON OAKS CO.	5.34	9/25/2020	282,500	309,700	109.63			
Location: 26 MAPLE HILL ROAD											
L827408394	210-066-12137	BARTON DAVID	LNP INC	0.00	6/3/2020	259,900	285,900	110.00			
Location: 4 PAIGE ROAD											
L117723136	210-066-11140	BASSETT SCOTT	FRENCH LANDON	0.96	6/28/2019	217,000	229,900	105.94			
Location: 114 RIVER ROAD											
L204312576	210-066-10755	BATES LARRY	BASSETT SCOTT	0.50	10/30/2020	295,000	299,200	101.42			
Location: 1185 MAIN STREET											
L30922752	210-066-10355	BEAUCAGE ERICOT	HAMMOND RYAN	0.44	1/3/2020	100,000	215,200	119.56			
Location: 36 FLETCHER ROAD											
L736821248	210-066-12165	BEAUCHAMP SARAH	WHITNEY AND ASSOCIAT...	1.38	11/25/2020	292,550	339,000	115.88			
Location: 37 ROSE ROAD (LOT 6)											
L86042624	210-066-12050	BELLAVANCE JASON	LNP INC.	0.00	5/23/2019	255,000	286,900	112.51			
Location: 12 PAIGE ROAD											
L1407389696	210-066-10946	BENOIT GARY	MINOR MARILYN	2.06	3/10/2021	360,000	373,300	103.69			
Location: 2 MANSFIELD ROAD											
647093312	210-066-12155	BERARD, KATHLEEN	LABRIE, MARK	1.25	11/5/2021	519,000	493,900	95.16			
Location: 54 APPLE TREE ROAD											
L1441949552	210-066-10961	BERGERON BRADLEY	SMITH JASON	0.32	4/22/2020	229,000	246,400	107.60			
Location: 15 MAPLE STREET											
644330048	210-066-10867	BIRKETT, JEFFERY	MANAHAN, MYRIA	1.00	2/15/2022	300,000	285,600	95.20			
Location: 2704 MAIN STREET											

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## Finding the source of your Applied Ratio

### Fairfax 2022 Certified Final Computation Sheet

Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD
R1	1,186	380,374,300	26,300	380,548,000	379,588,000	106.08		358,763,102	357,858,125	7.83

State of Vermont - Division of Property Valuation and Review      Certified Final Sales Report      \*\*\* Equalization Study - 2022 \*\*\*  
 Fairfax      Benton Mitchell      Sales Between: 4/1/2019 and 3/31/2022

**R1 - Residential with less than 6 acres**

Category Sample		Valid	For the year 2022 - the sampling error limit is 15%		See Sampling Error.
<b>Limits Established by Original Sales Data</b>					
210 Total Transactions	99.49	Low InterQuartile Value			
320,859 Average Sales Price	114.07	High InterQuartile Value			
340,369 Average Listed Price	14.58	InterQuartile Range			
106.98 Average Ratio					
106.52 Median Ratio	77.62	Value of Outlier Low Limit			
71.33 Low Ratio	135.93	Value of Outlier High Limit			
133.92 High Ratio	55.78	Value of Extreme Low Limit			
1.01 PRD (Regression Index)	157.80	Value of Extreme High Limit			
7.83 COD					
48	Number of Transactions with Assessment Ratio Between 0.98 and 1.02				
23%	Percent of Transactions with Assessment Ratio Between 0.98 and 1.02				
<b>Ratios/Confidence Intervals</b>					
	105.00	Low 90% Value of Aggregate			
	107.16	High 90% Value of Aggregate			
	106.08	Aggregate Ratio			
	1.02%	Sampling Error			

If your Category is valid, your Aggregate Ratio will match the Applied Ratio on the Certified Final Computation Sheet

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### Finding the Source of your Applied Ratio

For the year 2022 the sampling error limit is 15%

Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD
R1	1,186	380,574,300	26,300	380,548,000	379,588,000	106.08		358,763,102	357,858,125	7.83
R2	421	170,703,200	675,800	170,027,400	169,757,400	104.89		162,776,477	162,519,064	10.23
MHU	4	224,100	0	224,100	224,100	105.93	C	211,555	211,555	0.00
MHL	55	9,612,600	0	9,612,600	9,612,600	105.93	C	9,074,483	9,074,483	20.27

**MHL - Mobile home landed**

Category Sample **Invalid** For the year 2022 - the sampling error limit is 15% See Sampling Error.

Category Statistics	Limits Established by Original Sales Data	Ratios/Confidence Intervals
5 Total Transactions	81.38 Low InterQuartile Value	72.60 Low 90% Value of Aggregate
171,000 Average Sales Price	129.83 High InterQuartile Value	119.19 High 90% Value of Aggregate
163,980 Average Listed Price	48.45 InterQuartile Range	95.89 Aggregate Ratio
103.60 Average Ratio		24.30% Sampling Error

Class - Residential (R2, MHU, MHL, S1, S2, R1, O)

Town Sample **Valid**

Town Statistics	Limits Established by Original Sales Data	Ratios/Confidence Intervals
302 Total Transactions	99.35 Low InterQuartile Value	104.97 Low 90% Value of Aggregate
317,245 Average Sales Price	114.29 High InterQuartile Value	106.89 High 90% Value of Aggregate
336,062 Average Listed Price	14.94 InterQuartile Range	105.93 Aggregate Ratio
106.89 Average Ratio		0.91% Sampling Error

If the Class statistics are used, the Aggregate Ratio for Class will match the Applied Ratio on the Certified Final Computation Sheet

You will also see the column Ratio Source on your Final Computation Sheet. This denotes the source of the Applied Ratio.

**"Ratio Source" Definitions:**

C: Class

T: Town-wide

O: Override

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### Finding the Source of your Applied Ratio

**Fairfax 2022**  
Certified Final Computation Sheet

*"Ratio Source" Definitions:*  
C: Class  
T: Town-wide  
O: Override

Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD
M	124	10,135,600	740,300	9,395,300	9,395,300	105.75	T	9,624,744	9,624,744	14.26

**M - Miscellaneous**

Category Sample **Invalid** For the year 2022 - the sampling error limit is 15% See Sampling Error.

Category Statistics	Limits Established by Original Sales Data	Ratios/Confidence Intervals
Class - Farm/Vacant (W, M, F)		20.22% Sampling Error

Town Sample **Invalid**

Town Sample **Valid**

Town Statistics	Limits Established by Original Sales Data	Ratios/Confidence Intervals
All Sales (R1, R2, MHU, MHL, S1, S2, C, CA, I, F, W, M, O)		19.70% Sampling Error

Town Sample **Valid**

Town Statistics	Limits Established by Original Sales Data	Ratios/Confidence Intervals
318 Total Transactions	99.38 Low InterQuartile Value	104.69 Low 90% Value of Aggregate
310,751 Average Sales Price	114.29 High InterQuartile Value	106.80 High 90% Value of Aggregate
328,611 Average Listed Price	14.91 InterQuartile Range	105.75 Aggregate Ratio
106.81 Average Ratio		0.99% Sampling Error
107.13 Median Ratio	77.01 Value of Outlier Low Limit	4 Number of Low Outliers
55.91 Low Ratio	136.66 Value of Outlier High Limit	6 Number of High Outliers
		12.39% Weighted Standard Deviation

If the Town statistics are used, the Aggregate Ratio for Town will match the Applied Ratio on the Certified Final Computation Sheet

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## What is InterQuartile Range / How to Calculate Outliers

State of Vermont - Division of Property Valuation and Review      Certified Final Sales Report      Equalization Study -  
 Northfield      Barbara Schlesinger      Sales Between: 4/1/2019 and 3/31/2022

All Sales (R1, R2, MHU, MHL, S1, S2, C, CA, I, F, W, M, O)

Town Sample Valid: For the year 2022 - the sampling error limit is 15%      See Sampling Error.

Town Statistics	Limits Established by Original Sales Data	Ratios/Confidence Intervals
220 Total Transactions	68.92 Low InterQuartile Value	77.04 Low 90% Value of Aggregate
213,054 Average Sales Price	93.93 High InterQuartile Value	81.22 High 90% Value of Aggregate
168,594 Average Listed Price	25.01 InterQuartile Range	79.13 Aggregate Ratio
84.48 Average Ratio		2.64% Sampling Error
80.34 Median Ratio	31.40 Value of Outlier Low Limit	0 Number of Low Outliers
38.96 Low Ratio	131.45 Value of Outlier High Limit	15 Number of High Outliers
168.89 High Ratio	- 6.12 Value of Extreme Low Limit	0 Number of Low Extremes/Influentials
1.07 PRD (Regression Index)	168.97 Value of Extreme High Limit	2 Number of High Extremes/Influentials
21.61 COD		
10 Number of Transactions with Assessment Ratio Between 0.98 and 1.02		
5% Percent of Transactions with Assessment Ratio Between 0.98 and 1.02		

**InterQuartile Range**  
25.01

x

1.5

=

37.52

-

**Low InterQuartile Value**  
68.92

-

37.52

=

**Value of Outlier Low Limit**  
31.40

**InterQuartile Range = High InterQuartile Value - Low InterQuartile Value.**  
93.93 - 68.92 = 25.01

**High InterQuartile Value**  
93.93

+

37.52

=

**Value of Outlier High Limit**  
131.45

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## Where to find Outlier Sales

Doc ID	SPAN	Buyer	Seller	Acres	Sale Date	Sale Price	Listed Value	Ratio	T	C	Cat
L1689669632	441-139-11569	AUSTIN STEPHANIE Location: 85 BAILEY RD.	PORTER RICHARD	6.79	1/14/2020	168,900	236,400	139.96	O	O	O
L117743616	441-139-10242	BACHMAN DAVID Location: 1945 LOOP RD	SHAW CASSIDY	13.50	9/18/2020	267,000	207,000	77.53			
L39706624	441-139-10963	BREDBENNER MICHAEL Location: 1825 HALLSTROM ROAD	BUTLER CAROLINE	32.25	2/21/2020	279,000	243,200	87.17			
968223808	441-139-10882	CONLON, JUSTIN Location: 134 SCENIC VIEW DRIVE	ROSS, CHRISTOPHER A	8.00	9/24/2021	360,000	258,700	71.86			
925862976	441-139-11930	DARLING, JOANN Location: 624 BEAN ROAD	ELLIS, GRETCHEN W	7.64	8/9/2021	218,875	168,900	77.17			
L844390400	441-139-11637	DIEGO MARK Location: 1862 LOOP ROAD	ROTONDI KATHERINE	9.40	5/16/2019	278,000	275,400	99.06			
8371264	441-139-10873	DUNN, JESSE R Location: 449 WOODS ROAD	DUNCAN, ERIC W	10.10	12/17/2021	300,000	206,600	68.87			
L1143648256	441-139-11789	GREEN BENJAMIN Location: 1665 RABBIT HOLLOW RD	SUPPLEE ARLINGTON	32.60	5/24/2019	380,000	452,300	119.03			
L1941155840	441-139-11884	GRISWOLD TIMOTHY Location: 1248 ROUTE 12A	CADORETTE RONALD	13.40	12/10/2019	329,000	309,300	94.01			
L200413184	441-139-11835	HEWITT GREG Location: 330 WEST HILL ROAD	HYDE RICHARD	150.00	5/23/2019	350,000	404,900	115.69			
L770310144	441-139-12128	HOLUB LUCAS Location: 809 WEST HILL ROAD	CLEMENTS JOSEPH	27.00	6/17/2019	158,000	174,800	110.63			
L10092544	441-139-10412	JACKSON JARRET Location: 64 BELLMORE ROAD	D'ANGELO P. MARK	30.00	9/26/2019	410,000	293,100	71.49			
L948551680	441-139-10722	KOZLOWSKI NATALIE Location: 156 BARK HOLLOW ROAD	GERDES VERMONT REAL ...	105.30	7/2/2020	185,000	279,000	150.81	O	O	O

The outlier calculation from the previous slide was for the Town (All Sales). Your Outlier range for your Class and Category can be found on each statistics summary page for Category, Class, or Town.

**Value of Outlier Low Limit**  
31.40

**Value of Outlier High Limit**  
131.45

**Outliers will remain in the study unless research proves they should be removed as an invalid sale.**

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## How to calculate Extremes

State of Vermont - Division of Property Valuation and Review      Certified Final Sales Report      \*\*\* Equalization Study -  
 Northfield      Barbara Schlesinger      Sales Between: 4/1/2019 and 3/31/2022

All Sales (R1, R2, MHU, MHL, S1, S2, C, CA, I, F, W, M, O)

Town Sample Valid: For the year 2022 - the sampling error limit is 15%      See Sampling Error.

Town Statistics	Limits Established by Original Sales Data		Ratios/Confidence Intervals
220 Total Transactions	68.92 Low InterQuartile Value		77.04 Low 90% Value of Aggregate
213,054 Average Sales Price	93.93 High InterQuartile Value		81.22 High 90% Value of Aggregate
168,594 Average Listed Price	25.01 InterQuartile Range		79.13 Aggregate Ratio
84.48 Average Ratio			2.64% Sampling Error
80.34 Median Ratio	31.40 Value of Outlier Low Limit	0 Number of Low Outliers	19.85% Weighted Standard Deviation
38.96 Low Ratio	131.45 Value of Outlier High Limit	15 Number of High Outliers	
168.89 High Ratio	- 6.12 Value of Extreme Low Limit	0 Number of Low Extremes/Influentials	
1.07 PRD (Regression Index)	168.97 Value of Extreme High Limit	2 Number of High Extremes/Influentials	
21.61 COD			
10 Number of Transactions with Assessment Ratio Between 0.98 and 1.02			
5% Percent of Transactions with Assessment Ratio Between 0.98 and 1.02			

**InterQuartile Range**  
25.01

x

3

=

75.03

-

Low InterQuartile Value  
68.92

=

Value of Extreme Low  
Limit  
-6.12

**InterQuartile Range = High  
InterQuartile Value - Low  
InterQuartile Value.**  
93.93 - 68.92 = 25.01

+

High InterQuartile Value  
93.93

=

Value of Extreme High  
Limit  
168.97

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## Where to find Extremes Sales

MHU - Mobile home un-landed

Doc ID	SPAN	Buyer	Seller	Acres	Sale Date	Sale Price	Listed Value	Ratio	T	C	Cat
L746020864	441-139-10489	AMELL PATRICK AND LA...	BUCK JASON AND KATHL...	0.00	12/14/2019	14,000	14,200	101.43			
		Location: 119 K T LANE LOT 8									
1837632576	441-139-11136	BILODEAU, MICHAEL	ATWOOD, BRITTNEY	0.00	7/15/2021	11,795	30,600	259.43	E	E	
		Location: 29 EXPANSION DRIVE									
L1020706816	441-139-12247	DUPREY JOHN	DILLINGER DWAYNE	0.00	11/6/2019	25,000	30,000	120.00			
		Location: 39 EXPANSION DRIVE #23									
L1585184768	441-139-11058	JULIAN ALEXIS	LAVALLEY TODD	0.00	10/16/2020	44,500	35,300	79.33			
		Location: 45 TOP ROAD									
L485163008	441-139-10127	KING AIRI	BISCHOFF SAVANNAH	0.00	4/17/2020	12,000	17,500	145.83	O	O	
		Location: 1988 SKYLINE HAMPSHIRE AT 78 K-T LANE LOT #17									
L913743872	441-139-10250	PAYETTE ALLISON	HACKETT MARIAH	0.00	6/8/2020	36,000	24,800	68.89			
		Location: 75 EXPANSION DRIVE									
L790659072	441-139-11484	VALLER MARY E	DANIELS ALEXIS	0.00	7/16/2020	15,000	22,800	152.00	O	O	
		Location: 20 FIRST ST LOT 18									
1862360128	441-139-10220	WILLS, MARYROBIN B	JAYNE, ROBERT	0.00	11/1/2021	32,000	14,200	44.38			
		Location: 32 FOURTH STREET ,LOT #43									
<b>Totals for MHU - Mobile home un-landed</b>				<b>0.00</b>		<b>190,295</b>	<b>189,400</b>				

The outlier calculation from the previous slide was for the Town (All Sales). Your Extreme range for your Class and Category can be found on each statistics summary page for Category, Class, or Town.

**Value of Extreme Low  
Limit  
-6.12**

**Value of Extreme High  
Limit  
168.97**

**Extremes are calculated for the Town, Class, and Category and will show on your report as an "E". The sale will be removed from the identified statistics as seen in the columns on the far right of the sales (T, C, Cat).**

\*If a sale is not listed in the Certified Final Sales Report, it is not included in the study.

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## What is the Coefficient of Dispersion (COD)?

The Coefficient of Dispersion (COD) is a measure of equity. It shows how fairly distributed the property tax is within a town. A high COD (above 20%) means that many taxpayers are paying more than their fair share, and many are paying less than their fair share.

Towns are required by statute to maintain a Coefficient of Dispersion that does not exceed 20%. If this limit is not met, the Division of Property Valuation and Review will order the town to complete a reappraisal. (Title 32-5405)

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State of Vermont - Division of Property Valuation and Review										December 16, 2022 3:20 PM
<b>New Haven 2022</b>										
Certified Final Computation Sheet										
Category	Property Count	ED Form 411 Listed Value	CUSE Value	Education Listed Value Excl. CUSE	Municipal Listed Value Excl. CUSE	Applied Ratio	Ratio Source	Education Equalized Value	Municipal Equalized Value	COD
R1	245	51,773,200	0	51,773,200	51,653,200	74.08		69,888,229	69,726,242	16.82
R2	370	119,082,800	1,057,800	118,025,000	117,965,000	79.19		150,252,661	150,176,894	14.33
MHU	1	17,400	0	17,400	17,400	76.78	C	22,662	22,662	0.00
MHL	23	3,156,900	6,900	3,150,000	3,150,000	76.78	C	4,110,539	4,110,539	0.00
S1	0	0	0	0	0	0.00	C	0	0	0.00
S2	5	2,060,800	38,200	2,022,600	2,022,600	76.78	C	2,678,062	2,678,062	0.00
C	34	13,539,300	0	13,539,300	13,539,300	77.61	T	17,445,303	17,445,303	0.00
CA	3	1,403,700	17,600	1,386,100	1,386,100	77.61	T	1,806,153	1,806,153	0.00
I	4	4,685,600	87,200	4,598,400	4,598,400	77.61	T	6,024,952	6,024,952	0.00
UE	13	76,267,000	0	76,267,000	86,066,600	88.54	O	86,138,468	97,206,460	0.00
UO	1	27,097,500	0	27,097,500	27,097,500	77.61	T	34,914,959	34,914,959	0.00
F	40	11,296,000	2,143,500	9,152,500	9,152,500	87.16	C	12,957,537	12,957,537	0.00
O	34	58,400	0	58,400	58,400	87.16	C	67,003	67,003	0.00
W	4	387,800	20,100	367,700	367,700	87.16	C	444,905	444,905	0.00
M	130	7,792,900	1,340,300	6,452,600	6,452,600	87.16		8,939,327	8,939,327	16.54
	<b>907</b>	<b>318,619,300</b>	<b>4,711,600</b>	<b>313,907,700</b>	<b>323,527,300</b>			<b>395,690,762</b>	<b>406,521,000</b>	
				Cable: 596,532	0	100.00		596,532	0	0
				Inventory: Exempt	0	100.00		Exempt	0	0
				Machinery & Equip: Exempt	0	100.00		Exempt	0	0
				TOTAL: 596,532	0			596,532	0	0
				<b>GRAND TOTAL:</b>	<b>\$314,504,232</b>	<b>\$323,527,300</b>	<b>80.55</b>	<b>\$396,287,294</b>	<b>\$406,521,000</b>	

CW	Certified to County:	\$396,287,000	CLA:	80.55
	Certified to State:	\$396,287,000	Townwide COD:	16.63

*"Ratio Source" Definitions:*  
C: Class  
T: Town-wide  
O: Override

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State of Vermont - Division of Property Valuation and Review New Haven		Certified Final Sales Report Theresa Gile		*** Equalization Study - 2022 *** Sales Between: 4/1/2019 and 3/31/2022							
<b>M - Miscellaneous</b>											
Doc ID	SPAN	Buyer	Seller	Acres	Sale Date	Sale Price	Listed Value	Ratio	T	C	Cat
L132964352	432-135-11916	BREAULT JESSICA Location: LIME KILN ROAD	GREENE JEANNIE	5.10	3/8/2020	80,000	67,000	83.75			
192367168	432-135-11942	HANCE, PETER Location: MUNGER STREET	BENOIT, EDWARD J	5.80	3/14/2022	105,000	109,500	104.29			
L1899536384	432-135-11342	LUTTON GREGORY MARK Location: HUNT ROAD	HALL DOUGLAS	40.41	11/4/2020	99,500	91,300	91.76			
L1814794240	432-135-11938	MATEO CAROL Location: 4312 MUNGER STREET	GERMON EDWARD	5.80	7/29/2019	108,000	109,500	101.39			
1650031680	432-135-11808	MORSE, MEGAN L Location: 0 DALLINGER ROAD	RENAUD, ANDREA J	16.80	12/28/2021	140,000	100,500	71.79			
1142600768	432-135-11705	RICCI, JOHN Location: 297 KING FARM ROAD	HOLM-HANSEN, KEVIN	10.10	6/30/2021	210,000	135,800	64.67			
L1300529152	432-135-11865	SANDY ARVIN Location: 4284 ETHAN ALLEN HIGHWAY	KELLY WILLIAM	20.20	1/31/2020	90,000	97,200	108.00			
L1581395968	432-135-11951	SMITH SEANAVERI Location: LOT 6 MAIN ROAD	GIULIANO BARBARA	8.07	5/2/2019	90,000	66,000	73.33			
L526417920	432-135-11958	WEMETTE DAVID Location: 00 MUNGER STREET	PECK DAVID	5.20	2/3/2021	93,000	108,300	116.45			
<b>Totals for M - Miscellaneous</b>				<b>117.48</b>		<b>1,015,500</b>	<b>885,100</b>				
<b>M - Miscellaneous</b>											
Category Sample <b>Valid:</b> For the year 2022 - the sampling error limit is 15%									See Sampling Error.		
Category Statistics		Limits Established by Original Sales Data			Ratios/Confidence Intervals						
9 Total Transactions		72.56 Low InterQuartile Value			74.55 Low 90% Value of Aggregate						
112,833 Average Sales Price		106.14 High InterQuartile Value			99.77 High 90% Value of Aggregate						
98,344 Average Listed Price		33.58 InterQuartile Range			87.16 Aggregate Ratio						
90.60 Average Ratio					14.47% Sampling Error						
91.76 Median Ratio		22.18 Value of Outlier Low Limit		0 Number of Low Outliers							
64.67 Low Ratio		156.52 Value of Outlier High Limit		0 Number of High Outliers							
116.45 High Ratio		-28.19 Value of Extreme Low Limit		0 Number of Low Extremes/Influentials							
1.04 PRD (Regression Index)		206.89 Value of Extreme High Limit		0 Number of High Extremes/Influentials							
16.54 COD											TG
1 Number of Transactions with Assessment Ratio Between 0.98 and 1.02											
11% Percent of Transactions with Assessment Ratio Between 0.98 and 1.02											

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### How to calculate your COD

The COD is the average of the absolute deviations of each sales ratio from the median ratio, divided by the median ratio.

\*\*\* Equalization Study - 2022 \*\*\*  
Sales Between: 4/1/2019 and 3/31/2022

Sale Price	Listed Value	Ratio	T	C	Cat
80,000	67,000	83.75			
105,000	109,500	104.29			
99,500	91,300	91.76			
108,000	109,500	101.39			
140,000	100,500	71.79			
210,000	135,800	64.67			
90,000	97,200	108.00			
90,000	66,000	73.33			
93,000	108,300	116.45			
<b>1,015,500</b>	<b>885,100</b>				

A	B	C	D	E
1	OTHER COD			
2	Ratio	Deviation from median		
3	83.75	8.01		
4	104.29	12.53		
5	91.76	0		
6	101.39	9.63		
7	71.79	19.97		
8	64.67	27.09		
9	108	16.24		
10	73.33	18.43		
11	116.45	24.69		
12				
13	Median Ratio	91.76	136.59	Total Deviation
14			9	count
15	Average Ratio	90.6033	15.17666667	avg deviation
16				
17			0.165395234	avg dev/median
18	COD	16.54		100%

**Calculation for Ratio**

Listed Value/Sale Price = ABS(B3-B\$13)

Listed Value/Sale Price = ABS(B4-B\$13)

Listed Value/Sale Price = ABS(B5-B\$13)

Listed Value/Sale Price = ABS(B6-B\$13)

Listed Value/Sale Price = ABS(B7-B\$13)

Listed Value/Sale Price = ABS(B8-B\$13)

Listed Value/Sale Price = ABS(B9-B\$13)

Listed Value/Sale Price = ABS(B10-B\$13)

Listed Value/Sale Price = ABS(B11-B\$13)

**Calculation for Deviation from the Median**

=ABS(B3-B\$13)

=ABS(B4-B\$13)

=ABS(B5-B\$13)

=ABS(B6-B\$13)

=ABS(B7-B\$13)

=ABS(B8-B\$13)

=ABS(B9-B\$13)

=ABS(B10-B\$13)

=ABS(B11-B\$13)

**Category Statistics**

9 Total Transactions

112,833 Average Sales Price

98,344 Average Listed Price

90.60 Average Ratio

91.76 Median Ratio

64.67 Low Ratio

116.45 High Ratio

1.04 PRD (Regression Index)

16.54 COD

Median Ratio =MEDIAN(B3:B11)

Average Ratio =AVERAGE(B3:B11)

Total Deviation count =SUM(D4:D11)

avg deviation =D13/D14

avg dev/median =D15/B13

100% =round((D17\*100),2)

Use the 'Your EQ Study Calculations' spreadsheet provided.

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**The results of the Equalization Study are used to do the following:**

- Determine education property tax rates
- Determine whether a municipality must undergo a reappraisal
- Determine taxes municipalities pay to the county
- The CLA is applied to current use value to equalize and make equitable

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**The results of the Equalization Study are used to do the following:**

- The CLA is applied to appeals beyond lister grievance to make fair market value equitable
- The CLA is applied to utility values each year to make fair market value equitable
- The CLA is applied directly to education tax rates to equalize the rates

To learn more about the Equalization Study, see [‘Introduction to Vermont’s Equalization Study’](#), located on our website.

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***What is the Lister/Assessor Role & Responsibility when it comes to this process?***

The listers/assessor are asked to provide feedback to PVR each year about the validity of sales. It is essential to spend sufficient time researching sales that come into your office to determine if they represent valid/arms-length transactions. The importance cannot be understated. If you are not allowed enough time to do this, you might want to have a conversation with your Selectboard about the impact of these numbers.

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***What is the Lister/Assessor Role & Responsibility when it comes to this process?***

The results of the sales study hinge primarily on the quality of data that is used. It is also important for you to study sales for your own purposes to have knowledge and insight into your level of assessment so you can speak about it to taxpayers and town officials in addition to making decisions and planning adjustments to your grand list. A complete reappraisal is only one option.

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# ***Questions and Comments***

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## ***Next Step***

***In 2 weeks, we will have another one of these sessions where we will talk about validating sales, researching sales, what to look for, and how to use the appropriate codes to invalidate sales.***

***We will take a break and use the link in the comments to access the VTPIE Training on Sales Validation.***

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