## CONSENT CALENDAR

March 1, 2022

## HOUSE OF REPRESENTATIVES REPORT OF COMMITTEE

The Committee on Transportation to which was referred HB 1570-FN,

AN ACT relative to reducing vehicle registration fees. Having considered the same, report the same with the following resolution: RESOLVED, that it is INEXPEDIENT TO LEGISLATE.

Rep. Aidan Ankarberg FOR THE COMMITTEE

## COMMITTEE REPORT

| Committee: | Transportation |
| :--- | :--- |
| Bill Number: | HB 1570-FN |
| Title: | relative to reducing vehicle registration fees. |
| Date: | March 1, 2022 |
| Consent Calendar: | CONSENT |
| Recommendation: | INEXPEDIENT TO LEGISLATE |

## STATEMENT OF INTENT

The New Hampshire Municipal Association testified to a loss of municipal revenue of between 82.5 to 90 million dollars yearly, statewide. This is too onerous a burden to place upon our towns and cities and as a result, the committee opposes this bill.

Vote 19-0.

Rep. Aidan Ankarberg
FOR THE COMMITTEE

Original: House Clerk
Cc: Committee Bill File

## CONSENT CALENDAR

## Transportation

HB 1570-FN, relative to reducing vehicle registration fees. INEXPEDIENT TO LEGISLATE.
Rep. Aidan Ankarberg for Transportation. The New Hampshire Municipal Association testified to a loss of municipal revenue of between 82.5 to 90 million dollars yearly, statewide. This is too onerous a burden to place upon our towns and cities and as a result, the committee opposes this bill. Vote 19-0.

Original: House Clerk
Cc: Committee Bill File

## HOUSE COMMITTEE ON TRANSPORTATION

## EXECUTIVE SESSION on HB 1570-FN

BILL TITLE: relative to reducing vehicle registration fees.
DATE: $\quad$ March 1, 2022
LOB ROOM: 203

MOTIONS: INEXPEDIENT TO LEGISLATE
Moved by Rep. Ankarberg
Seconded by Rep. Hill
Vote: 19-0

## CONSENT CALENDAR: YES

Statement of Intent: $\quad$ Refer to Committee Report

Respectfully submitted,

Rep Karel Crawford, Clerk

BILL TITLE: ... relative to reducing vehicle registration DATE: $3 / 1 / 22$ Fees

LOB ROOM: 20 -203

MOTION: (Please check one box)
$\square$ OTB
XI TL
$\square$ Retain (1 ${ }^{\text {st }}$ year)
Adoption of Amendment \# $\qquad$
$\square$ Interim Study (and year) (if offered)

Moved by Rep. Ankerkers_Seconded by Rep. Hill Vote: 19-0

## MOTION: (Please check one box)

$\square$ OTP
OTP/AIT
Retain (1 ${ }^{\text {st }}$ year)
Adoption of Amendment \# $\qquad$Interim Study (and year) (if offered)

Moved by Rep.
Seconded by Rep.
Vote:

## MOTION: (Please check one box)

$\square$ aTP
OTP/ATL
Moved by Rep.

## MOTION: (Please check one box)

$\square$ Retain ( 1st year)
Adoption of Amendment \# $\qquad$
$\square$ Interim Study (and year) (if offered)

Seconded by Rep.
Vote:OTPOTP/AITURetain (1 ${ }^{\text {st }}$ year)

Adoption of Amendment \# $\qquad$Interim Study (and year) (if offered)

Moved by Rep.
Seconded by Rep.
Vote:

CONSENT CALENDAR:
 NO

Minority Report? $\qquad$ Yes $\qquad$ No If yes, author, Rep: $\qquad$ Motion $\qquad$

Respectfully submitted:


## Transportation

Bill \#: $\qquad$ AM \#:

Exec Session Date: $\qquad$ Members

Walsh, Thomas C. Chairman
Gagne, Larry G. Vice Chairman
Smith, Steven D.
Crawford, Karel A. Clerk
Hill, Gregory G.
Thompson, Dennis J.
Ankarberg, Aldan
Gorski, Ted
O'Hara, Travis J. Rep. Boyd
Pitaro, Matthew Rep. TorosiAN
Sykes, George E.
Cleaver, Skip J.
Dep. Fellows
Fenton, Donovan W.
Rombeau, Catherine
Rich, Cecilia
Telerski, Laura D.
Fox, Dru
Stevens, Deb
Veilleux, Daniel T.
Ans
woods
TOTAL VOTE:


# HOUSE COMMITTEE ON PUBLIC WORKS AND HIGHWAYS 

PUBLIC HEARING ON
BILL TITLE: HB 1570-FN relative to reducing vehicle registration fees
DATE: 2/22/22
LOB ROOM: 201-203

Time Public Hearing Called to Order: 9:49 am

Time Adjourned: 10:13 am

Committee Members: Reps. Walsh, Gagne, Crawford, Smith, Hill, Thompson, Ankarberg, Gorski, O'Hara, Pitaro, Sykes, Cleaver, Fenton, Rombeau,Rich, Telerski, Fox, Stevens and Veilleux

Bill Sponsors: Rep. Ammon

## TESTIMONY

- Use asterisk if written testimony and/or amendments are submitted.


## Rep. Ammon introduced the bill -

Reducing the registration fees - we know that the registration fees rolls the fees five year. Registration fee for a 40 to 60 thousand dollars and the fee could be $\$ 1,000.1975$ and 1980 is where we get the current rates. This money goes into the general fund for the towns. Manchester - 14,000,000 in registration fees, small towns receive 2,000,000 and they spend $1 / 2$ o roads.

Rep. Telerski - the fiscal note is confusing - how would it work with towns - we have one of the highest registration fees in the country -
Rep. Sykes - what puzzles me is how the fees would to replace that money would be on property taxes A. The whole thing is a shell game - follow-up the other part of the problem is a tax brake to those who does not drive.
Rep. O'Hara if we do lower the rate
*Katherine Heck - NHMA -oppose the bill will email written testimony -
Vehicle registration is the second highest revenue in the state, without it would have to raise property taxes. Using the revenue collected to increase the fees 2020 206,000,000 was collected the reduction would be $90,000,000$, this bill would zero out the increase we had last year in the meals and rooms tax.

Rep. Gorski - Are there other areas that we could look at? A. Unfortunately any reduction in revenues would affect the taxpayer.
Rep. Sykes - /are you aware of any studies on that show the comparison on rental studies and how tenants are charged in property taxes.
*Joan Dargie - NH City ad Town clerks will email testimony - oppose

Milford would lose 600,000 the first year - Salem would loose 1.2 million - if we loose the vehicle rates on business we will not gain anything to pay more for property taxes. If you live in sale tax states you would be paying more for registrations. This is just a shift in property taxes.

Respectfully submitted,
Rep. Karel Crawford, Clerk

SIGN UP SHEET
To Register Opinion If Not Speaking
Bill \#: HB 1570
Date: 2/22/22
Committee: Transportation
** Please Print All Information **


## House Remote Testify

## Transportation Committee Testify List for Bill HB1570 on 2022-02-22

Support: 21 Oppose: 40 Neutral: 0 Total to Testify: 0

| Name | City, State <br> Email Address | Title | Representing | $\underline{\text { Position }}$ | Testifying | Non-Germane | Signed Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maidment, Christopher | Peterborough, NH chris@maidmentnh.com | A Member of the Public | Myself | Support | No | No | 2/18/2022 9:33 AM |
| Deshaies, Rep. <br> Brodie | Wolfeboro, NH <br> BrodieforNH@gmail.com | An Elected Official | Carroll 6, Wolfeboro, NH | Oppose | No | No | 2/18/2022 12:38 PM |
| Dufort, Liselle | Newport, NH clerk@newportnh.gov | An Elected Official | Newport NH | Oppose | No | No | 2/18/2022 3:52 PM |
| Dargie, Joan | Milford, NH joan.dargie@milford.nh.gov | An Elected Official | Town of Milford | Oppose | No | No | 2/18/2022 4:18 PM |
| Dargie, Paul | Milford, NH pauldargie@gmail.com | An Elected Official | Myself | Oppose | No | No | 2/18/2022 6:01 PM |
| Parker, Kerri | Meredith, NH kparker@meredithnh.org | An Elected Official | Myself and a member of the NH Town Clerks Association | Oppose | No | No | 2/19/2022 8:01 AM |
| Kerekes, Kimberly | Barrington, NH <br> kkerekes@barrington.nh.gov | An Elected Official | Myself | Oppose | No | No | 2/19/2022 9:05 AM |
| Schweiker, Roy | Concord, NH royswkr@hotmail.com | A Member of the Public | Myself | Oppose | No | No | 2/19/2022 4:01 PM |
| Parker, Jack | Alton, NH <br> Jackparker12@gmail.com | A Member of the Public | Myself | Oppose | No | No | 2/20/2022 9:53 AM |
| Hamer, Heidi | Manchester, NH heidi.hamer@leg.state.nh.us | An Elected Official | Myself | Oppose | No | No | 2/20/2022 1:53 PM |
| Eisner, Mary | Derry, NH nhdem@msn.com | A Member of the Public | Myself | Oppose | No | No | 2/20/2022 2:30 PM |
| Pauer, Eric | Brookline, NH secretary@BrooklineGOP.org | A Member of the Public | Self | Support | No | No | 2/20/2022 3:08 PM |
| Dontonville, Roger | Enfield, NH rdontonville@gmail.com | An Elected Official | Myself | Oppose | No | No | 2/20/2022 5:19 PM |


| Dontonville, Anne | Enfield, NH <br> Ardontonville@gmail.com |
| :---: | :---: |
| Howland, Curtis | Manchester, NH howland@priss.com |
| Smith, Suzanne | Hebron, NH zanne719@gmail.com |
| Smith, Julie | Nashua, NH cantdog@comcast.net |
| Panek, Sandra | Pelham, NH <br> Sandypanek@protonmail.com |
| Doughty, Patrick | Bethlehem, NH patrickdoughty@roadrunner.com |
| Enos, Liz | Litchfield, NH pwrmine@aol.com |
| Pumilia, MaryAnn | Laconia, NH mpumilia@frontiernet.net |
| Olson, William | Bristol, NH md88driver@gmail.com |
| Olson, Stephanie | Bristol, NH stephanieqolson@gmail.com |
| Doherty, David | Pembroke, NH ddoherty0845@gmail.com |
| Lewis, Elizabeth | Nashua, NH ecop.lewis@gmail.com |
| wazir, Safiya | Concord, NH <br> Swazir@leg.state.nh.us |
| Tucker, Katherine | Wilmot, NH <br> katherine.s.tucker@valley.net |
| Noel, Henry | Berlin, NH hw418noel@gmail.com |
| Weston, Joyce | Plymouth, NH jweston14@roadrunner.com |
| Oxenham, Lee | Plainfield, NH leeoxenham@comcast.net |
| Zirkle, Holly | Nottingham, NH gnomenclaturefun@gmail.com |


| A Member of the Public | Myself | Oppose | No | No | 2/20/2022 6:37 PM |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A Member of the Public | Myself | Support | No | No | 2/20/2022 9:24 PM |
| An Elected Official | Myself | Oppose | No | No | 2/21/2022 7:30 AM |
| A Member of the Public | Myself | Support | No | No | 2/21/2022 7:32 AM |
| A Member of the Public | Myself | Support | No | No | 2/21/2022 8:05 AM |
| A Member of the Public | Myself | Support | No | No | 2/21/2022 12:18 PM |
| A Member of the Public | Myself | Support | No | No | 2/21/2022 12:46 PM |
| A Member of the Public | Myself | Support | No | No | 2/21/2022 12:52 PM |
| A Member of the Public | Myself | Support | No | No | 2/21/2022 12:53 PM |
| A Member of the Public | Myself | Support | No | No | 2/21/2022 12:53 PM |
| A Member of the Public | Myself | Oppose | No | No | 2/21/2022 12:54 PM |
| A Member of the Public | Myself | Oppose | No | No | 2/21/2022 1:08 PM |
| An Elected Official | Myself and my Constituents | Oppose | No | No | 2/21/2022 1:12 PM |
| A Member of the Public | Myself | Oppose | No | No | 2/21/2022 3:35 PM |
| A Member of the Public | Myself | Oppose | No | No | 2/21/2022 3:51 PM |
| An Elected Official | Myself | Oppose | No | No | 2/21/2022 4:15 PM |
| An Elected Official | Myself | Oppose | No | No | 2/21/2022 5:18 PM |
| A Member of the Public | Myself | Oppose | No | No | 2/21/2022 5:46 PM |


| Support | No | No | 2/21/2022 6:28 PM |
| :---: | :---: | :---: | :---: |
| Support | No | No | 2/21/2022 6:33 PM |
| Support | No | No | 2/21/2022 6:46 PM |
| Support | No | No | 2/21/2022 8:22 PM |
| Oppose | No | No | 2/21/2022 8:33 PM |
| Oppose | No | No | 2/21/2022 9:40 PM |
| Oppose | No | No | 2/21/2022 10:15 PM |
| Oppose | No | No | 2/21/2022 10:19 PM |
| Oppose | No | No | 2/21/2022 10:50 PM |
| Support | No | No | 2/21/2022 11:15 PM |
| Support | No | No | 2/22/2022 12:44 AM |
| Oppose | No | No | 2/22/2022 12:45 AM |
| Support | No | No | 2/22/2022 4:09 AM |
| Oppose | No | No | 2/22/2022 4:59 AM |
| Support | No | No | 2/22/2022 7:55 AM |
| Oppose | No | No | 2/22/2022 8:27 AM |
| Oppose | No | No | 2/22/2022 8:31 AM |
| Oppose | No | No | 2/22/2022 8:49 AM |


| Medeiros, Jesse | Plainfield, NH bgtrck458@gmail.com | A Member of the Public | Myself | Support | No | No | 2/22/2022 9:43 AM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alleman, Bill | Weare, NH gencourt@allemanse.com | A Member of the Public | Myself | Support | No | No | 2/22/2022 9:44 AM |
| Hamblet, Joan | Portsmouth, NH jhamblet4@gmail.com | A Member of the Public | Myself | Oppose | No | No | 2/22/2022 9:46 AM |
| Hoyt, Nicole | Boscawen, NH nhoyt@townofboscawen.org | An Elected Official | Myself | Oppose | No | No | 2/22/2022 10:06 AM |
| Dilts-Brown, Haley | Boscawen, NH <br> hdiltsbrown@townofboscawen.org | A Member of the Public | Myself | Oppose | No | No | 2/22/2022 10:20 AM |
| caporale, norma | boscawen, NH ncaporale@townofboscawen.org | A Member of the Public | Boscawen | Oppose | No | No | 2/22/2022 10:25 AM |
| Harriott-Gathright, Linda | Nashua, NH linda.harriottgathright@leg.state.nh.us | An Elected Official | Constituents | Oppose | No | No | 2/22/2022 11:31 AM |
| Murray, Kate | New Castle, NH dr.karma2000@gmail.com | An Elected Official | Myself | Oppose | No | No | 2/22/2022 1:06 PM |
| Bouchard, Donald | MANCHESTER, NH donaldjbouchard@gmail.com | An Elected Official | Myself | Oppose | No | No | 2/22/2022 1:45 PM |
| Howard, Raymond | Alton, NH <br> brhowardjr@yahoo.com | An Elected Official | Belknap 8 | Support | No | No | 2/22/2022 2:15 PM |
| Kiely, Cecilia | Nottingham, NH <br> Cecilia.kiely@gmail.com | A Member of the Public | Myself | Oppose | No | No | 2/22/2022 3:53 PM |
| Dolkart, Vivian | Grantham, NH viviandolkart@gmail.com | A Member of the Public | Myself | Oppose | No | No | 2/22/2022 7:29 PM |

February 21, 2022
House Transportation Committee
NH State House
107 N Main St
Concord, NH 03303

RE: HB 1570
Ladies \& Gentlemen:
The Granite State Taxpayers are writing to express support of HB 1570.
Passage of this legislation serves two essential functions. The rates created under it bring New Hampshire vehicle registration fees more in line with our major economic competitor, Massachusetts.

The New Hampshire vehicle registration fee tends to charge somewhat higher fees on older vehicles than Massachusetts does under its excise tax. This change in rates would make our state vehicle registration fees more in line with the Massachusetts practice and, thus, make our state more competitive.

Secondly, it creates more economic freedom for New Hampshire cities and towns. Reducing "free" state-derived vehicle registration fees means local spending is more rationally controlled and prioritized. When the money comes via Concord, it is easier to make spending decisions that are not as rational because the tax is not imposed by the people spending it.

Local control is a hallmark of New Hampshire law and politics, and passage of this legislation will enhance that tradition.

Thank you for your attention.
Sincerely yours,

Paul Peter Nicolai, Esq.


| 105000 | 2020 Dalton | Coos |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 105100 | 2020 Danbury | Merrimack | \$ | 259,791.00 |
| 105200 | 2020 Danville | Rockinghar | \$ | 1,020,612.00 |
| 105300 | 2020 Deerfield | Rockinghar | \$ | 1,132,112.00 |
| 105400 | 2020 Deering | Hillsboroue | \$ | 397,616.00 |
| 105500 | 2020 Derry | Rockinghar | \$ | 6,761,676.00 |
| 105700 | 2020 Dorchester | Grafton | \$ | 70,970.00 |
| 105800 | 2020 Dover | Strafford | \$ | 6,104,229.00 |
| 105900 | 2020 Dublin | Cheshire | \$ | 354,896.00 |
| 106000 | 2020 Dummer | Coos | \$ | 83,991.00 |
| 106100 | 2020 Dunbarton | Merrimack | \$ | 768,588.00 |
| 106200 | 2020 Durham | Strafford | \$ | 1,180,592.00 |
| 106300 | 2020 East Kingst | Rockinghar | \$ | 580,894.00 |
| 106400 | 2020 Easton | Grafton | \$ | 75,480.00 |
| 106500 | 2020 Eaton | Carroll | \$ | 104,156.00 |
| 106600 | 2020 Effingham | Carroll | \$ | 328,361.00 |
| 106700 | 2020 Ellsworth | Grafton | \$ | 19,673.00 |
| 106800 | 2020 Enfield | Grafton | \$ | 1,096,295.00 |
| 106900 | 2020 Epping | Rockinghar | \$ | 1,627,367.00 |
| 107000 | 2020 Epsom | Merrimack | \$ | 1,115,759.00 |
| 107100 | 2020 Errol | Coos | \$ | 130,850.00 |
| 107200 | 2020 Exeter | Rockinghar | \$ | 3,090,723.00 |
| 107300 | 2020 Farmingtor | Strafford | \$ | 1,483,957.00 |
| 107400 | 2020 Fitzwilliam | Cheshire | \$ | 535,689.00 |
| 107500 | 2020 Francestou | Hillsboroue | \$ | 357,272.00 |
| 107600 | 2020 Franconia | Grafton | \$ | 297,068.00 |
| 107700 | 2020 Franklin | Merrimack | \$ | 1,434,051.00 |
| 107800 | 2020 Freedom | Carroll | \$ | 430,249.00 |
| 107900 | 2020 Fremont | Rockinghar | \$ | 1,093,973.00 |
| 108000 | 2020 Gilford | Belknap | \$ | 2,145,130.00 |
| 108100 | 2020 Gilmanton | Belknap | \$ | 975,312.00 |
| 108200 | 2020 Gilsum | Cheshire | \$ | 145,638.00 |
| 108300 | 2020 Goffstown | Hillsboroue | \$ | 3,451,899.00 |
| 108400 | 2020 Gorham | Coos | \$ | 685,440.00 |
| 108500 | 2020 Goshen | Sullivan | \$ | 158,708.00 |
| 108600 | 2020 Grafton | Grafton | \$ | 226,744.00 |
| 108700 | 2020 Grantham | Sullivan | \$ | 891,350.00 |
| 108800 | 2020 Greenfield | Hillsboroue | \$ | 311,273.00 |
| 108900 | 2020 Greenland | Rockinghar | \$ | 1,152,202.00 |
| 109000 | 2020 Greenville | Hillsboroue | \$ | 352,779.00 |
| 109100 | 2020 Groton | Grafton | \$ | 159,162.00 |
| 109200 | 2020 Hampsteac | Rockinghar | \$ | 2,124,704.00 |
| 109300 | 2020 Hampton | Rockinghar | \$ | 3,973,435.00 |
| 109400 | 2020 Hampton F | Rockinghar | \$ | 727,203.00 |
| 109500 | 2020 Hancock | Hillsboroue | \$ | 376,859.00 |
| 109600 | 2020 Hanover | Grafton | \$ | 1,635,737.00 |
| 109700 | 2020 Harrisville | Cheshire | \$ | 213,205.00 |
| 109800 | 2020 Hart's Loca | Carroll | \$ | 15,058.00 |
| 109900 | 2020 Haverhill | Grafton | \$ | 946,235.00 |
| 110000 | 2020 Hebron | Grafton | \$ | 194,255.00 |


| 110100 | 2020 Henniker | Merrimack | \$ | 974,839.00 |
| :---: | :---: | :---: | :---: | :---: |
| 110200 | 2020 Hill | Merrimack | \$ | 210,612.00 |
| 110300 | 2020 Hillsboroug | Hillsboroug | \$ | 1,054,391.00 |
| 110400 | 2020 Hinsdale | Cheshire | \$ | 691,330.00 |
| 110500 | 2020 Holderness | Grafton | \$ | 593,839.00 |
| 110600 | 2020 Hollis | Hillsboroug | \$ | 2,103,074.00 |
| 110700 | 2020 Hooksett | Merrimack | \$ | 4,512,274.00 |
| 110800 | 2020 Hopkinton | Merrimack | \$ | 1,324,911.00 |
| 110900 | 2020 Hudson | Hillsboroug | \$ | 6,118,713.00 |
| 111000 | 2020 Jackson | Carroll | \$ | 278,080.00 |
| 111100 | 2020 Jaffrey | Cheshire | \$ | 1,161,751.00 |
| 111200 | 2020 Jefferson | Coos | \$ | 299,370.00 |
| 111300 | 2020 Keene | Cheshire | \$ | 3,456,635.00 |
| 111400 | 2020 Kensington | Rockinghar | \$ | 577,668.00 |
| 111500 | 2020 Kingston | Rockinghar | \$ | 1,419,285.00 |
| 111600 | 2020 Laconia | Belknap | \$ | 3,298,465.00 |
| 111700 | 2020 Lancaster | Coos | \$ | 734,714.00 |
| 111800 | 2020 Landaff | Grafton | \$ | 107,000.00 |
| 111900 | 2020 Langdon | Sullivan | \$ | 171,724.00 |
| 112000 | 2020 Lebanon | Grafton | \$ | 2,693,210.00 |
| 112100 | 2020 Lee | Strafford | \$ | 937,418.00 |
| 112200 | 2020 Lempster | Sullivan | \$ | 244,700.00 |
| 112300 | 2020 Lincoln | Grafton | \$ | 402,334.00 |
| 112400 | 2020 Lisbon | Grafton | \$ | 339,797.00 |
| 112500 | 2020 Litchfield | Hillsboroug | \$ | 1,973,934.00 |
| 112600 | 2020 Littleton | Grafton | \$ | 1,328,962.00 |
| 112700 | 2020 Londonder | Rockinghar | \$ | 9,203,949.00 |
| 112800 | 2020 Loudon | Merrimack | \$ | 1,401,594.00 |
| 112900 | 2020 Lyman | Grafton | \$ | 144,932.00 |
| 113000 | 2020 Lyme | Grafton | \$ | 408,685.00 |
| 113100 | 2020 Lyndeboroı | Hillsboroug | \$ | 349,559.00 |
| 113200 | 2020 Madbury | Strafford | \$ | 425,700.00 |
| 113300 | 2020 Madison | Carroll | \$ | 611,097.00 |
| 113400 | 2020 Mancheste | Hillsboroue | \$ | 23,604,327.00 |
| 113500 | 2020 Marlboroui | Cheshire | \$ | 404,171.00 |
| 113600 | 2020 Marlow | Cheshire | \$ | 152,044.00 |
| 113700 | 2020 Mason | Hillsboroug | \$ | 335,914.00 |
| 113800 | 2020 Meredith | Belknap | \$ | 1,793,059.00 |
| 113900 | 2020 Merrimack | Hillsboroug | \$ | 6,009,856.00 |
| 114000 | 2020 Middleton | Strafford | \$ | 367,967.00 |
| 114100 | 2020 Milan | Coos | \$ | 341,363.00 |
| 114200 | 2020 Milford | Hillsboroug | \$ | 3,207,500.00 |
| 114300 | 2020 Milton | Strafford | \$ | 916,432.00 |
| 114400 | 2020 Monroe | Grafton | \$ | 228,520.00 |
| 114500 | 2020 Mont Vern | Hillsboroug | \$ | 565,409.00 |
| 114600 | 2020 Moultonbo | Carroll | \$ | 1,719,656.00 |
| 114700 | 2020 Nashua | Hillsboroug | \$ | 16,221,043.00 |
| 114800 | 2020 Nelson | Cheshire | \$ | 132,196.00 |
| 114900 | 2020 New Bosto | Hillsboroug | \$ | 1,455,047.00 |
| 115000 | 2020 New Castle | Rockinghar | \$ | 343,686.00 |


| 115100 | 2020 New Durha Strafford | \$ | 670,434.00 |
| :---: | :---: | :---: | :---: |
| 115200 | 2020 New Hamp Belknap | \$ | 583,762.00 |
| 115300 | 2020 New Ipswic Hillsboroug | \$ | 1,170,209.00 |
| 115400 | 2020 New Londc Merrimack | \$ | 1,146,598.00 |
| 115500 | 2020 Newbury Merrimack | \$ | 587,656.00 |
| 115600 | 2020 Newfields Rockinghar | \$ | 444,417.00 |
| 115700 | 2020 Newington Rockinghar | \$ | 349,917.00 |
| 115800 | 2020 Newmarke Rockinghar | \$ | 1,796,596.00 |
| 115900 | 2020 Newport Sullivan | \$ | 1,366,011.00 |
| 116000 | 2020 Newton Rockinghar | \$ | 1,193,840.00 |
| 116100 | 2020 North Ham Rockinghar | \$ | 1,468,300.00 |
| 116200 | 2020 Northfield Merrimack | \$ | 1,019,017.00 |
| 116300 | 2020 Northumb Coos | \$ | 453,044.00 |
| 116400 | 2020 Northwooc Rockinghar | \$ | 981,622.00 |
| 116500 | 2020 Nottinghan Rockinghar | \$ | 1,208,934.00 |
| 116600 | 2020 Orange Grafton | \$ | 65,089.00 |
| 116700 | 2020 Orford Grafton | \$ | 337,631.00 |
| 116800 | 2020 Ossipee Carroll | \$ | 958,292.00 |
| 116900 | 2020 Pelham Hillsboroug | \$ | 3,518,544.00 |
| 117000 | 2020 Pembroke Merrimack |  |  |
| 117100 | 2020 Peterborol Hillsboroug | \$ | 1,251,175.00 |
| 117200 | 2020 Piermont Grafton | \$ | 148,080.00 |
| 117300 | 2020 Pittsburg Coos | \$ | 298,764.00 |
| 117400 | 2020 Pittsfield Merrimack | \$ | 745,775.00 |
| 117500 | 2020 Plainfield Sullivan | \$ | 590,263.00 |
| 117600 | 2020 Plaistow Rockinghar | \$ | 1,854,520.00 |
| 117700 | 2020 Plymouth Grafton | \$ | 906,338.00 |
| 117800 | 2020 Portsmoutl Rockinghar | \$ | 5,237,756.00 |
| 117900 | 2020 Randolph Coos | \$ | 82,442.00 |
| 118000 | 2020 Raymond Rockinghar | \$ | 2,225,094.00 |
| 118100 | 2020 Richmond Cheshire | \$ | 235,288.00 |
| 118200 | 2020 Rindge Cheshire | \$ | 1,368,726.00 |
| 118300 | 2020 Rochester Strafford | \$ | 6,132,265.00 |
| 118400 | 2020 Rollinsford Strafford | \$ | 588,466.00 |
| 118500 | 2020 Roxbury Cheshire | \$ | 44,570.00 |
| 118600 | 2020 Rumney Grafton | \$ | 325,131.00 |
| 118700 | 2020 Rye Rockinghar | \$ | 1,687,583.00 |
| 118800 | 2020 Salem Rockinghar | \$ | 7,145,920.00 |
| 118900 | 2020 Salisbury Merrimack | \$ | 310,445.00 |
| 119000 | 2020 Sanborntor Belknap | \$ | 762,626.00 |
| 119100 | 2020 Sandown Rockinghar | \$ | 1,481,612.00 |
| 119200 | 2020 Sandwich Carroll | \$ | 357,610.00 |
| 119300 | 2020 Seabrook Rockinghar | \$ | 2,083,876.00 |
| 119400 | 2020 Sharon Hillsboroug | \$ | 82,978.00 |
| 119500 | 2020 Shelburne Coos | \$ | 86,889.00 |
| 119600 | 2020 Somerswor Strafford | \$ | 2,115,833.00 |
| 119700 | 2020 South Ham Rockinghar | \$ | 252,426.00 |
| 119800 | 2020 Springfield Sullivan | \$ | 338,622.00 |
| 119900 | 2020 Stark Coos | \$ | 112,345.00 |
| 120000 | 2020 Stewartsto Coos | \$ | 189,447.00 |


| 120100 | 2020 Stoddard | Cheshire |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 120200 | 2020 Strafford | Strafford | \$ | 895,714.00 |
| 120300 | 2020 Stratford | Coos | \$ | 131,552.00 |
| 120400 | 2020 Stratham | Rockinghar | \$ | 1,919,103.00 |
| 120500 | 2020 Sugar Hill | Grafton | \$ | 176,888.00 |
| 120600 | 2020 Sullivan | Cheshire | \$ | 132,467.00 |
| 120700 | 2020 Sunapee | Sullivan | \$ | 982,972.00 |
| 120800 | 2020 Surry | Cheshire | \$ | 273,671.00 |
| 120900 | 2020 Sutton | Merrimack | \$ | 449,566.00 |
| 121000 | 2020 Swanzey | Cheshire | \$ | 1,623,063.00 |
| 121100 | 2020 Tamworth | Carroll | \$ | 623,495.00 |
| 121200 | 2020 Temple | Hillsboroug | \$ | 281,655.00 |
| 121300 | 2020 Thornton | Grafton | \$ | 628,574.00 |
| 121400 | 2020 Tilton | Belknap | \$ | 832,089.00 |
| 121500 | 2020 Troy | Cheshire | \$ | 377,256.00 |
| 121600 | 2020 Tuftonborc | Carroll | \$ | 724,503.00 |
| 121700 | 2020 Unity | Sullivan | \$ | 289,357.00 |
| 121800 | 2020 Wakefield | Carroll | \$ | 1,168,449.00 |
| 121900 | 2020 Walpole | Cheshire | \$ | 784,226.00 |
| 122000 | 2020 Warner | Merrimack | \$ | 585,291.00 |
| 122100 | 2020 Warren | Grafton | \$ | 165,299.00 |
| 122200 | 2020 Washingto | Sullivan | \$ | 264,889.00 |
| 122300 | 2020 Waterville | Grafton | \$ | 147,401.00 |
| 122400 | 2020 Weare | Hillsboroug | \$ | 2,121,174.00 |
| 122500 | 2020 Webster | Merrimack | \$ | 439,901.00 |
| 122600 | 2020 Wentwortt | Grafton | \$ | 206,439.00 |
| 122700 | 2020 Westmorel | Cheshire | \$ | 382,612.00 |
| 122800 | 2020 Whitefield | Coos | \$ | 493,841.00 |
| 122900 | 2020 Wilmot | Merrimack | \$ | 367,584.00 |
| 123000 | 2020 Wilton | Hillsboroug | \$ | 862,215.00 |
| 123100 | 2020 WinchesteI | Cheshire | \$ | 770,242.00 |
| 123200 | 2020 Windham | Rockinghar | \$ | 4,064,931.00 |
| 123300 | 2020 Windsor | Hillsboroug | \$ | 42,042.00 |
| 123400 | 2020 Wolfeboro | Carroll | \$ | 1,671,405.00 |
| 123500 | 2020 Woodstock | Grafton | \$ | 334,823.00 |
|  |  |  | \$ | 296,751,660.00 |

2896000
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5487825


February 22, 2022
Honorable Thomas Walsh, Chair
House Transportation Committee
LOB Room 203
Concord, New Hampshire
Re: HB 1570- relative to reducing vehicle registration fees.
Dear Representative Walsh and Committee Members:

I write to express the New Hampshire Municipal Association's opposition to HB 1570.

This legislation would reduce the amount of revenue collected and retained by municipalities. Vehicle registrations are the second largest source of municipal revenue for our communities. Each month, vehicle registrations provide a consistent revenue stream, assist with cash flow and reduce the amount of money that has to be raised in local property taxation. This revenue is unrestricted and can be used to offset any appropriation approved by the legislative body. A reduction in motor vehicle fees equates to raising local property tax to make up for this revenue reduction.

The town permit fee for registration is based on the vehicle model year, the original factory list price of the vehicle, and the expiration date of the registration. I will note that it is not possible to calculate the precise reduction in state-wide revenue because we do not have registration information broken down by model year by town. However, NHMA conservatively estimates a -27.81 percent* decrease in revenue resulting from this legislation. Several communities reported an estimated - 30+ percent* reduction when analyzing their community specific data which does include, vehicle model year, the original factory list price of the vehicle, and the expiration date of the registration.

Our most recent data is from 2020, where $\$ 296.7$ million was collected in municipal motor vehicle registration fees state-wide.

A conservative estimate of the impact of this bill would be a $-\$ 82.5$ million per year reduction in revenue, upwards to - $\$ 90$ million per year, state-wide.

For comparison, in 2019, $\$ 289$ million was collected in vehicle registration fees. We estimate that this legislation would have reduced local municipal revenue by approximately $-\$ 80.4$ million.

To put this in perspective- this bill would essentially zero out the local tax reduction benefits of the meals and room revenue sharing distribution that the state legislature has generously increased to $\$ 100$ million dollars in the last legislative session.

We respectfully request that the committee recommend this bill Inexpedient to Legislate.
Thank you very much for your consideration.
Respectfully submitted,


## Katherine Heck

Government Finance Advisor
cc: Committee members
Attachments
*Using the actual revenue collected statewide in Fiscal year 2019 and 2020 and calculating the decrease in fees by percentage and using the average of the six permitting fees is the basis of the reduction in revenue calculation. Rather than using a simple average, the geometric mean was calculated to indicate the central tendency of a set of numbers to account for the high and low outliers.

The data source is the actual total revenue collected from vehicle registration fees statewide per the NH Public Finance Consortium Data Model at www.nhpfc.org.

| Calculations |  | $\begin{gathered} \text { Simple } \\ \text { AVERAGE } \end{gathered}$ | Geometric Mean |
| :---: | :---: | :---: | :---: |
| Current Fee | Proposed Fee | \% Decrease | \% Decrease |
| 18 | 15 | -16.67\% | -16.67\% |
| 15 | 12 | -20.00\% | -20.00\% |
| 12 | 9 | -25.00\% | -25.00\% |
| 9 | 6 | -33.33\% | -33.33\% |
| 6 | 3 | -50.00\% | -50.00\% |
| 3 | 2 | -33.33\% | -33.33\% |
|  |  | -29.72\% | -27.81\% |

$$
\begin{array}{lr}
2020 \text { Total Fees collected } & \$ 296,751,660.00 \\
\text { Estimated Reduction } & \$ 82,256,636.65 \\
27.81 \% & \text { Central value } / \text { geometric mean used }
\end{array}
$$

```
2019 Total Fees collected $289,085,777.00
Estimated Reduction $ 80,394,754.58
27.81% Central value/geometric mean used
```

Archived: Friday, March 11, 2022 1:21:16 PM
From: Katherine Heck
Sent: Tuesday, February 22, 2022 5:39:24 PM
To: ~House Transportation Committee; Thomas Walsh; Larry Gagne; Karel Crawford; Steven Smith; Greg Hill; Aidan Ankarberg; Dennis@nnefs.com; Dennis@nnefs.com; Ted Gorski
Cc: Travis O'Hara; matthew @ matthewpitaro.com; George Sykes; Skip Cleaver; Donovan Fenton; Catherine Rombeau; Cecilia Rich; Dru Fox; Deb Stevens; Daniel Veilleux
Subject: Property taxes and rental costs
Importance: Normal
Attachments:
NH-Housing-Rental-Survey-Report-2021.pdf ;tsoodleturner.pdf ;

Dear Chairman Walsh and Committee Member:

Today at the hearing for HB 1570- relative to reducing vehicle registration fees, I was asked to provide some information on property tax and rental costs.

Please find the attached NEW HAMPSHIRE HOUSING 2021 RESIDENTIAL RENTAL COST SURVEY REPORT.

Additionally, I have cited three studies that conclude a correlation between property tax and rental costs below.

1. Attached, please find case study: Property Taxes and Residential Rents Leah J. Tsoodle \& Tracy M. Turner, 2008
Abstract. Property taxes are a fundamental source of revenue for local governments, comprising $73 \%$ of local government tax revenue in the United States. In this paper, we empirically investigate the impact of residential property taxes on residential rents. Using data from the American Housing Survey and the National League of Cities, we estimate numerous specifications of a hedonic rent equation with comprehensive unitlevel, neighborhood-level and city-level controls. We find that a one standard deviation increase in the property tax rate raises residential rents by roughly $\$ 400$ annually.
2. In 2014, Byron Lutz, an economist with the Federal Reserve, studied a change in property taxes in New Hampshire. While the purpose of this study was not exclusively to compare property tax to rental costs, some clear conclusions can be drawn for this research. Property taxes can be seen as a change in the rate of return or profit. So, something else in this equation has to change when property taxes change if rent is to remain the same. The question is, when property taxes change the rate of return for a landlord, does that cause a change in the rent or the price? Lutz looked at supply and demand for housing as it relates to tenancy. When building increased in New Hampshire after property taxes were reduced, he inferred that an increase in the quantity demanded was related to a decline in rents. Lower taxes meant lower rents, so tenants bought more shelter.

Citation: Lutz, Byron. 2015. "Quasi-Experimental Evidence on the Connection between Property Taxes and Residential Capital Investment." American Economic Journal: Economic Policy, 7 (1): 300-330.
3. Another study out of MIT, concluded that rents rise after tax changes sufficiently to fully absorb $80-90 \%$ of the change in landlord tax payments. While it was a MA study, the business principals of return on investment would likely to apply to New Hampshire.

## Lyndsey Rolheiser, "Commercial Property Tax Incidence: Evidence from the Rental Market", MIT PhD Dissertation, Center for Real Estate, 2017.

The basic accounting identity can be used to show how property taxes relate to ownership of residential property.

Net rental value after maintenance and expenses $=$ Rate of return on investment $\times$ Price

Respectfully submitted,

Katherine Heck


Katherine Heck<br>Government Finance Advisor<br>NH Municipal Association<br>25 Triangle Park Drive<br>Concord, NH 03301<br>Tel: (603) 224-7447<br>Email: kheck@nhmunicipal.org<br>American Rescue Plan Page

Archived: Friday, March 11, 2022 1:21:16 PM
From: Katherine Heck
Sent: Tuesday, February 22, 2022 5:33:52 PM
To: ~House Transportation Committee; Thomas Walsh; Larry Gagne; Karel Crawford; Steven Smith; Greg Hill; Aidan Ankarberg; Dennis@nnefs.com; Dennis@ nnefs.com; Ted Gorski
Cc: Travis O'Hara; matthew @ matthewpitaro.com; George Sykes; Skip Cleaver; Donovan Fenton; Catherine Rombeau; Cecilia Rich; Dru Fox; Deb Stevens; Daniel Veilleux
Subject: HB 1570 _Reduction in Motor Vehicle Fees
Importance: Normal
Attachments:
HB_1570_Testimony.pdf ;2020_MVR_Actual_NHFPC_Data.xlsx ;

Dear Chairman Walsh and Committee Members;

Attached please find my written testimony on HB 1570- relative to reducing vehicle registration fees.

NHMA expresses opposition to this bill for the reasons outlined in my testimony.

I have also attached the source document that you have requested which can be generated by visiting the NH Public Finance Consortium Data Model at www.nhpfc.org.

Thank you for your time and consideration,

Respectfully submitted,
Katherine Heck


## Katherine Heck

Government Finance Advisor
NH Municipal Association
25 Triangle Park Drive
Concord, NH 03301
Tel: (603) 224-7447
Email: kheck@nhmunicipal.org
American Rescue Plan Page

Archived: Friday, March 11, 2022 1:21:16 PM
From: Karel Crawford
Sent: Monday, February 21, 2022 9:47:13 PM
To: ~House Transportation Committee
Cc: John MacDonald
Subject: HB 1570
Importance: Normal

Good day Chairman Walsh and members of the House Transportation Committee,

I always appreciate common sense legislation that cuts taxes for our citizens. Unfortunately, I am unable to support this Bill. I spoke to my Town Clerk and she estimates that if HB 1570 passed, the Town of Wolfeboro would have an estimated loss of revenue of between fifty and sixty thousand dollars per year.

This loss of revenue would have to be recovered through additional increases in property taxes for all Wolfeboro residents even if they do not own a motor vehicle. It would be unfair to have an increased tax burden on residents who choose not to own a motor vehicle in order to benefit motor vehicle owners.

I would ask that the Committee consider ITL on House Bill 1570. Thank you for your consideration.

Best regards,

John T. MacDonald

John T. MacDonald
Representative
Carroll District 6

Sent from my iPad

Archived: Friday, March 11, 2022 1:21:16 PM
From: Paul Peter Nicolai
Sent: Monday, February 21, 2022 6:54:29 AM
To: $\sim$ House Transportation Committee
Subject: HB 1570
Importance: Normal
Attachments:
02.21.22 1tr on HB 1570.pdf

## The Granite State Taxpayers submit a statement of support for HB 1570. See Attached.

PLEASE NOTE:

In keeping with mandates and guidelines to reduce coronavirus spread, our staff continues to largely work remotely. Since our systems allow for remote operations, our cooperation with efforts to keep the community safe should have no service effect. If you have a question or issue, please contact Paul Nicolai at 413-272-2000 ext 222 or paul.nicolai@niclawgrp.com

2021
NEW HAMPSHIRE RESIDENTIAL RENTAL COST SURVEY REPORT
$0.6 \%$


## 2021 RESIDENTIAL RENTAL COST SURVEY REPORT

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Michael Skelton, Bedford
Dean J. Christon Executive Director

## REPORT PREPARED BY

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P.O. Box 5087 | Manchester, NH 03108 | 603-472-8623 | info@nhhfa.org | NHHFA.org

Download this report and data at NHHFA.org

# THE 2021 RESIDENTIAL RENTAL MARKET: LOW INVENTORY, LOWER VACANCY RATES, HIGHER RENTS 

Dean J. Christon, Executive Director<br>New Hampshire Housing

New Hampshire Housing's annual statewide survey of market-rate apartments provides a comprehensive view of the rental market which is not available elsewhere. Our 2021 Residential Rental Cost Survey received responses from the owners and managers of more than 24,560 unsubsidized (market-rate) rental housing units around the state ( $15 \%$ of all units statewide).

The survey results show that there is a high demand for apartments, a limited supply, and a low vacancy rate, meaning that it remains a very challenging market for New Hampshire renters. This is paired with a limited supply of homes to buy, hindering the ability of renters to become homeowners.

Rents reported in the survey reflect the demand for apartments: this year's statewide median gross rent (including utilities) of $\$ 1,498$ for two-bedroom units is up $6 \%$ over last year (and up $7 \%$ for all units). Rents statewide have increased in each of the past eight years.

At less than $1 \%(0.9 \%)$, the vacancy rate for all units is lower than last year (a vacancy rate of $5 \%$ is considered a balanced market for tenants and landlords). In comparison, both the U.S. and Northeast vacancy rates are at 6.8\%.

Multi-family building permit activity has been increasing slowly since the Great Recession, and the overall trend remains more modest than the issuance of single-family building permits. New apartment units that are added to the market tend to be more expensive than existing units. To afford the statewide median cost of a typical two-bedroom apartment with utilities, a New Hampshire renter would have to earn $128 \%$ of the estimated statewide median renter income, or over \$59,900 a year.

The home purchase market, particularly since January 2021, has been very strong and competitive in the state, regionally and nationally. Factors contributing to this include record low interest rates for a long period of time, as well as the pandemic influencing people's needs and desires as to where to make their home. In turn, the lack of inventory of affordable homes to purchase means that many would-be home buyers continue to rent because of a scarcity of homes in their price range. The lack of for-sale inventory adds pressure to rental costs in New Hampshire.

To sustain New Hampshire's economy, additional housing is needed to support our workforce, as well as those who cannot work because of age or disability. It is estimated that about 20,000 more housing units are needed to meet current demand and stabilize the market.

Over the past year, New Hampshire Housing committed financing for more than 1,000 rental units. These will be available to renters within 12-18 months. Clearly, the results of this year's survey indicate that, working together, we must continue to encourage and support the development of more housing opportunities throughout the Granite State.

## OVERVIEW OF THE RENT SURVEY PROCESS

New Hampshire Housing conducts an annual statewide survey of rental housing costs that provides data to the general public and organizations that administer housing programs.


Total Adjusted Sample Size: 10, 631 Units

> Our 2021 survey was conducted by the University of New Hampshire Survey Center via telephone and online from March - May 2021, as well as through outreach to property owners and managers by K. Kirkwood Consulting. We obtained information on 24,560 market-rate rental housing units across the state. Rental properties surveyed included those that have participated in past surveys and those identified through advertisements and other means.
> The calculation of median rents is based on a total sample of 10,870 units. Median rents and vacancy rates were determined by using a portion of the data gathered from those projects with more than 10 units so as to reduce the bias toward larger apartment complexes.

GROSS RENTS are calculated for each property in the survey by taking the rent charged by the landlord and adding a dollar allowance for those utilities the tenant pays. The addition of allowances for tenantpaid utilities has the effect of standardizing rental costs. These utility allowances are calculated at the time of the rental survey and are based on physical consumption allowances determined by HUD and current energy costs as determined in a separate survey conducted by New Hampshire Housing.
MEDIAN GROSS RENTS are presented for various geographic areas and for various unit sizes. The median represents the gross rent at the middle when gross rents are ordered from lowest to highest. Thus, $50 \%$ of the sample units in each calculation have gross rents below the median, and $50 \%$ have gross rents above the median. The median (rather than a mean or average) is used because it is less influenced by extremes in costs. All median gross rents reported include utilities.
Median rents for some areas are not reported because the sample was not large enough to result in a reliable calculation (generally, when the sample contained 20 or fewer units). Despite the suppression of results for categories with small sample sizes, the data for those units have been included in the calculation of the overall median rents statewide.

Finally, a chart for each area summarizing the results of the Residential Rental Cost Survey is included here. The median gross rents for two-bedroom units show general trends. Please note that because the sample set changes each year, changes in rents may be due to both the change in the sample and changes in utility costs used in calculating gross rents.

[^0]

## MONTHLY MEDIAN GROSS RENTS, 2-BEDROOM \& ALL UNITS (STATEWIDE, 2011-2021)

 Includes utilitiesThe statewide median gross rent (including utilities) for a 2-bedroom unit has increased over $24 \%$ in the past 5 years.


## MEDIAN MONTHLY GROSS RENT FOR 2-BEDROOM UNITS, 2011-2021 (STATEWIDE)



## 2021 GROSS RENTS BY NUMBER OF BEDROOMS (STATEWIDE)

|  | Sample Size | Rent Range | Median |
| ---: | ---: | ---: | ---: |
| 2021 GROSS RENT |  |  |  |
| 0-Bedroom | 452 | $\$ 250-\$ 2,400$ | $\$ 876$ |
| 1-Bedroom | 3,298 | $\$ 400-\$ 2,961$ | $\$ 1,118$ |
| 2-Bedroom | 5,492 | $\$ 469-\$ 3,413$ | $\$ 1,498$ |
| 3-Bedroom | 1,393 | $\$ 622-\$ 3,785$ | $\$ 1,506$ |
| 4+ Bedrooms | 239 | $\$ 837-\$ 4,426$ | $\$ 1,781$ |
| All Bedrooms | 10,874 | $\$ 250-\$ 4,426$ | $\$ 1,373$ |

## 2021 MEDIAN MONTHLY GROSS RENT AND PERCENT CHANGE BY COUNTY FOR 2-BEDROOM UNITS, 2016-2021

The statewide median gross rent for a 2-bedroom unit in 2021 was $\$ 1,498$. Eighty percent of the rental units surveyed are in the southern tier (Hillsborough, Rockingham, Merrimack, and Strafford counties) and they have the highest median gross rents. The rental costs seen here in Grafton County are driven by the market in the Hanover/Lebanon area.

Median Monthly Gross Rental Cost for 2-Bedroom Units

Percent Change in 2-Bedroom Median Gross Rent Over 2016-2021


AVERAGE ANNUAL UTILITY COSTS FOR UNITS WHERE TENANT PAYS FOR HEAT 2011-2021


AVERAGE MONTHLY UTILITY COSTS, WITH HEAT PAID BY TENANT 2021, BY COUNTY

|  | Bedrooms Per Unit |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 |  | 1 |  | 2 |  | 3 |  | 4+ |  | All Units |  |
| STATEWIDE | \$ | 122.21 | \$ | 145.57 | \$ | 184.12 | \$ | 205.74 | \$ | 250.32 | \$ | 176.68 |
| Belknap County | \$ | 150.92 | \$ | 139.78 | \$ | 205.39 | \$ | 232.16 | \$ | - | \$ | 184.57 |
| Carroll County | \$ | 168.50 | \$ | 181.86 | \$ | 240.41 | \$ | 308.50 | \$ | - | \$ | 235.30 |
| Cheshire County | \$ | 130.30 | \$ | 169.62 | \$ | 207.03 | \$ | 250.98 | \$ | 327.47 | \$ | 206.54 |
| Coos County | \$ | 172.00 | \$ | 209.80 | \$ | 260.07 | \$ | 335.21 | \$ | 367.50 | \$ | 267.15 |
| Grafton County | \$ | 140.33 | \$ | 177.72 | \$ | 233.59 | \$ | 280.83 | \$ | 307.00 | \$ | 213.92 |
| Hillsborough County | \$ | 112.98 | \$ | 127.25 | \$ | 161.41 | \$ | 183.32 | \$ | 221.20 | \$ | 157.09 |
| Merrimack County | \$ | 124.13 | \$ | 155.85 | \$ | 200.00 | \$ | 219.05 | \$ | 311.92 | \$ | 184.21 |
| Rockingham County | \$ | 123.29 | \$ | 153.73 | \$ | 192.52 | \$ | 233.11 | \$ | 217.00 | \$ | 187.48 |
| Strafford County | \$ | 105.42 | \$ | 148.17 | \$ | 202.74 | \$ | 222.08 | \$ | 292.35 | \$ | 195.24 |
| Sullivan County | \$ | - | \$ | 131.50 | \$ | 270.70 | \$ | 299.27 | \$ | 403.67 | \$ | 244.72 |

STATEWIDE VACANCY RATES, 2-BEDROOM \& ALL UNITS (2011-2021)


VACANCY RATES BY COUNTY (PERCENT OF 2-BEDROOM UNITS \& ALL UNITS, 2021)


The state's rental housing vacancy rate in 2021 remains under 2\% for 2-bedroom and all units, well below that of the Northeast region and the U.S., both of which are 6.8\%. A balanced rental market has a vacancy rate of approximately $5 \%$.

## VACANCY RATES FOR ALL UNITS (STATEWIDE \& COUNTY)

|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATEWIDE | 3.5\% | 3.2\% | 3.3\% | 2.5\% | 2.2\% | 1.5\% | 1.4\% | 2.0\% | 0.8\% | $1.8 \%$ | 0.9\% |
| Belknap County | 8.9\% | 3.3\% | 7.5\% | 5.3\% | 1.2\% | 4.9\% | 4.6\% | 4.0\% | 2.0\% | 1.0\% | 1.2\% |
| Carroll County | 11.3\% | 5.1\% | 3.1\% | 3.6\% | 3.9\% | 1.4\% | 0.0\% | *N/A | *N/A | 2.7\% | 0.7\% |
| Cheshire County | 6.4\% | 7.1\% | 2.5\% | 3.7\% | 3.2\% | 4.5\% | 1.0\% | 1.7\% | 0.9\% | 1.9\% | 1.7\% |
| Coos County | 15.2\% | 12.6\% | 9.5\% | 7.9\% | 9.2\% | 6.9\% | 10.7\% | 3.7\% | 1.0\% | 1.7\% | 0.6\% |
| Grafton County | 7.6\% | 7.5\% | 3.0\% | 3.9\% | 2.7\% | 3.0\% | 3.0\% | 3.9\% | 0.3\% | 2.8\% | 1.1\% |
| Hillsborough County | 2.2\% | 2.2\% | 2.6\% | 2.1\% | 2.3\% | 0.9\% | 1.2\% | 1.8\% | 1.0\% | 2.3\% | 0.9\% |
| Merrimack County | 4.8\% | 2.7\% | 3.3\% | 2.5\% | 1.7\% | 1.2\% | 1.1\% | 2.5\% | 0.5\% | 1.2\% | 0.4\% |
| Rockingham County | 2.7\% | 3.2\% | 3.4\% | 2.1\% | 1.9\% | 1.0\% | 1.1\% | 1.0\% | 0.3\% | 0.9\% | 0.8\% |
| Strafford County | 3.3\% | 3.6\% | 4.9\% | 2.1\% | 2.3\% | 1.4\% | 1.2\% | 2.6\% | 0.8\% | 2.1\% | 0.9\% |
| Sullivan County | 5.7\% | 7.4\% | 7.3\% | 5.8\% | 2.7\% | 6.4\% | 2.2\% | 0.9\% | 0.0\% | 0.0\% | 0.5\% |

[^1]
## NEW HAMPSHIRE OWNER AND RENTER MEDIAN HOUSEHOLD INCOMES

The median renter-occupied household income has increased only marginally over the past 10 years, whereas homeowner income has seen a somewhat greater increase. Neither has kept pace with the increasing cost of housing in the state. Source: U.S. Census Bureau, American Community Survey (2009-2019), 1 Year Estimates, in 2019 inflation adjusted dollars.


## HOUSEHOLD INCOMES REQUIRED TO AFFORD A 2-BEDROOM APARTMENT, 2021

In New Hampshire, $40 \%$ of rental households are paying $30 \%$ or more of their household income on rent. Lower-income families are likely to be paying an even higher percentage of their household income towards rent. Renter households throughout the state would need to earn more than the median renter income (Income Needed to Afford Rent) to be able to afford the rent for a two-bedroom unit.
Source: U.S. Census Bureau 2015-2019 American Community Survey, trended by 3\% for 2 years; Median Income for Renter Households by County.

|  | Median 2-BR <br> Rent | Income <br> Needed to <br> Afford Rent | \% of Renter <br> Household Income <br> (Est.) |
| :--- | :---: | :---: | :---: |
| Belknap County | $\$ 1,215$ | $\$ 48,600$ | $120 \%$ |
| Carroll County | $\$ 1,073$ | $\$ 42,900$ | $116 \%$ |
| Cheshire County | $\$ 1,100$ | $\$ 44,000$ | $110 \%$ |
| Coos County | $\$ 879$ | $\$ 35,200$ | $110 \%$ |
| Grafton County | $\$ 1,462$ | $\$ 58,500$ | $149 \%$ |
| Hillsborough County | $\$ 1,643$ | $\$ 65,700$ | $133 \%$ |
| Merrimack County | $\$ 1,339$ | $\$ 53,600$ | $121 \%$ |
| Rockingham County | $\$ 1,672$ | $\$ 66,900$ | $122 \%$ |
| Strafford County | $\$ 1,394$ | $\$ 55,800$ | $118 \%$ |
| Sullivan County | $\$ 1,119$ | $\$ 44,800$ | $113 \%$ |
| STATEWiDE | $\$ 1,498$ | $\$ 59,900$ | $128 \%$ |

## 2-BEDROOM UNITS AFFORDABLE TO MEDIAN INCOME RENTER HOUSEHOLDS

In general, higher income counties have access to more affordable units. However, even in the highest income county (Rockingham), only 10\% of the units would be affordable to half of the renter households.
Source: U.S. Census Bureau 2015-2019 American Community Survey, trended by 3\% for 2 years; Median Income for Renter Households by County

|  | Estimated <br> 2021 Renter <br> Household <br> Income $*$ | Affordable <br> Gross Rent <br> Based on <br> Income | \% of 2-Bedroom Units <br> Below Affordable Rent |
| :--- | :---: | :---: | :---: |
| Belknap County | $\$ 40,469$ | $\$ 1,012$ | 5.9 |
| Carroll County | $\$ 36,977$ | $\$ 924$ | $14.9 \%$ |
| Cheshire County | $\$ 40,089$ | $\$ 1,002$ | $23.1 \%$ |
| Coos County | $\$ 31,897$ | $\$ 797$ | $22.8 \%$ |
| Grafton County | $\$ 39,286$ | $\$ 982$ | $10.9 \%$ |
| Hillsborough County | $\$ 49,560$ | $\$ 1,239$ | $10.3 \%$ |
| Merrimack County | $\$ 44,318$ | $\$ 1,108$ | $11.3 \%$ |
| Rockingham County | $\$ 54,713$ | $\$ 1,368$ | $10.0 \%$ |
| Strafford County | $\$ 47,379$ | $\$ 1,184$ | $14.0 \%$ |
| Sullivan County | $\$ 39,566$ | $\$ 989$ | $7.4 \%$ |
| STATEWIDE | $\$ 46,743$ | $\$ 1,169$ | $13.1 \%$ |

## PERCENT OF 2-BEDROOM UNITS BELOW AFFORDABLE RENT



## MEDIAN MONTHLY GROSS RENTS FOR 2-BEDROOM UNITS - BY COUNTY

|  | Sample Size | Rent Range | Median |
| ---: | ---: | :---: | :---: |
| BELKNAP COUNTY |  |  |  |
| 0-Bedroom | 13 | $\$ 581-\$ 838$ | $* * * *$ |
| 1-Bedroom | 76 | $\$ 556-\$ 1,606$ | $\$ 956$ |
| 2-Bedroom | 114 | $\$ 780-\$ 1,769$ | $\$ 1,215$ |
| 3-Bedroom | 28 | $\$ 936-\$ 2,106$ | $\$ 1,501$ |
| 4+ Bedrooms | 1 | $\$ 1,845-\$ 1,845$ | $* * *$ |
| All Bedrooms | 232 | $\$ 556-\$ 2,106$ | $\$ 1,100$ |



| Sample Size | Rent Range | Median |  |
| ---: | ---: | :---: | :---: |
| CARROLL COUNTY |  |  |  |
| 0-Bedroom | 7 | $\$ 695-\$ 2,099$ | $* * * *$ |
| 1-Bedroom | 34 | $\$ 688-\$ 1,086$ | $\$ 866$ |
| 2-Bedroom | 43 | $\$ 819-\$ 1,477$ | $\$ 1,073$ |
| 3-Bedroom | 29 | $\$ 880-\$ 2,564$ | $\$ 1,221$ |
| 4+ Bedrooms | 1 | $\$ 1,850-\$ 1,850$ | $* * * *$ |
| All Bedrooms | 114 | $\$ 688-\$ 2,564$ | $\$ 1,016$ |


|  | Sample Size | Rent Range | Median |
| ---: | ---: | ---: | :---: |
| CHESHIRE COUNTY |  |  |  |
| 0-Bedroom | 46 | $\$ 543-\$ 1,005$ | $\$ 750$ |
| 1-Bedroom | 236 | $\$ 600-\$ 1,365$ | $\$ 1,004$ |
| 2-Bedroom | 217 | $\$ 729-\$ 1,893$ | $\$ 1,100$ |
| 3-Bedroom | 84 | $\$ 1,005-\$ 2,200$ | $\$ 1,406$ |
| 4+ Bedrooms | 24 | $\$ 1,238-\$ 3,845$ | $\$ 2,096$ |
| All Bedrooms | 607 | $\$ 543-\$ 3,845$ | $\$ 1,088$ |


|  | Sample Size | Rent Range | Median |
| ---: | ---: | :---: | :---: |
| COOS COUNTY |  |  |  |
| 0-Bedroom | 7 | $\$ 701-\$ 1,248$ | $* * * *$ |
| 1-Bedroom | 67 | $\$ 500-\$ 934$ | $\$ 742$ |
| 2-Bedroom | 117 | $\$ 469-\$ 1,847$ | $\$ 879$ |
| 3-Bedroom | 71 | $\$ 684-\$ 1,935$ | $\$ 984$ |
| 4+ Bedrooms | 10 | $\$ 837-\$ 1,577$ | $* * * *$ |
| All Bedrooms | 272 | $\$ 469-\$ 1,935$ | $\$ 879$ |



| Sample Size | Rent Range | Median |  |
| ---: | ---: | :---: | :---: |
| GRAFTON COUNTY |  |  |  |
| 0-Bedroom | 51 | $\$ 338-\$ 2,028$ | $\$ 728$ |
| 1-Bedroom | 282 | $\$ 400-\$ 2,961$ | $\$ 906$ |
| 2-Bedroom | 335 | $\$ 609-\$ 2,477$ | $\$ 1,462$ |
| 3-Bedroom | 54 | $\$ 880-\$ 3,423$ | $\$ 1,740$ |
| 4+ Bedrooms | 31 | $\$ 1,159-\$ 4,072$ | $\$ 1,795$ |
| All Bedrooms | 753 | $\$ 338-\$ 4,072$ | $\$ 1,156$ |



## MEDIAN MONTHLY GROSS RENTS FOR 2-BEDROOM UNITS - BY COUNTY

|  | Sample Size | Rent Range | Median |
| ---: | ---: | ---: | :---: |
| HILLSBOROUGH COUNTY |  |  |  |
| 0-Bedroom | 188 | $\$ 451-\$ 2,400$ | $\$ 993$ |
| 1-Bedroom | 1,181 | $\$ 500-\$ 2,002$ | $\$ 1,231$ |
| 2-Bedroom | 2,142 | $\$ 531-\$ 2,700$ | $\$ 1,643$ |
| 3-Bedroom | 638 | $\$ 867-\$ 2,706$ | $\$ 1,530$ |
| 4+ Bedrooms | 116 | $\$ 1,175-\$ 4,426$ | $\$ 1,603$ |
| All Bedrooms | 4,265 | $\$ 451-\$ 4,426$ | $\$ 1,526$ |



|  | Sample Size | Rent Range | Median |
| ---: | ---: | :---: | :---: |
| MERRIMACK COUNTY |  |  |  |
| 0-Bedroom | 58 | $\$ 250-\$ 1,566$ | $\$ 998$ |
| 1-Bedroom | 555 | $\$ 606-\$ 2,238$ | $\$ 1,096$ |
| 2-Bedroom | 692 | $\$ 614-\$ 2,305$ | $\$ 1,339$ |
| 3-Bedroom | 174 | $\$ 622-\$ 2,834$ | $\$ 1,381$ |
| 4+ Bedrooms | 17 | $\$ 1,000-\$ 2,600$ | $* * * *$ |
| All Bedrooms | 1,496 | $\$ 250-\$ 2,834$ | $\$ 1,249$ |



|  | Sample Size | Rent Range | Median |
| ---: | ---: | :---: | :---: |
| ROCKINGHAM COUNTY |  |  |  |
| 0-Bedroom | 50 | $\$ 543-\$ 1,886$ | $\$ 924$ |
| 1-Bedroom | 506 | $\$ 700-\$ 2,561$ | $\$ 1,233$ |
| 2-Bedroom | 1,036 | $\$ 777-\$ 3,413$ | $\$ 1,672$ |
| 3-Bedroom | 163 | $\$ 946-\$ 3,785$ | $\$ 1,849$ |
| 4+ Bedrooms | 9 | $\$ 1,991-\$ 3,747$ | $* * * *$ |
| All Bedrooms | 1,764 | $\$ 543-\$ 3,785$ | $\$ 1,556$ |



|  | Sample Size | Rent Range | Median |
| ---: | ---: | ---: | :---: |
| STRAFFORD COUNTY |  |  |  |
| 0-Bedroom | 22 | $\$ 640-\$ 1,373$ | $\$ 919$ |
| 1-Bedroom | 288 | $\$ 545-\$ 1,895$ | $\$ 1,100$ |
| 2-Bedroom | 699 | $\$ 848-\$ 2,706$ | $\$ 1,394$ |
| 3-Bedroom | 126 | $\$ 791-\$ 3,169$ | $\$ 1,531$ |
| 4+ Bedrooms | 22 | $\$ 1,422-\$ 3,332$ | $\$ 1,857$ |
| All Bedrooms | 1,157 | $\$ 545-\$ 3,332$ | $\$ 1,356$ |



|  | Sample Size | Rent Range | Median |
| ---: | ---: | ---: | :---: |
| SULLIVAN COUNTY |  |  |  |
| 0-Bedroom | 10 | $\$ 701-\$ 878$ | $* * * *$ |
| 1-Bedroom | 73 | $\$ 714-\$ 1,392$ | $\$ 870$ |
| 2-Bedroom | 97 | $\$ 764-\$ 1,519$ | $\$ 1,119$ |
| 3-Bedroom | 26 | $\$ 1,180-\$ 2,245$ | $\$ 1,334$ |
| 4+ Bedrooms | 8 | $\$ 1,238-\$ 1,663$ | $* * * *$ |
| All Bedrooms | 214 | $\$ 701-\$ 2,245$ | $\$ 1,044$ |



## MEDIAN MONTHLY GROSS RENTS FOR 2-BEDROOM UNITS - SELECTED CITIES

| Sample Size | Rent Range | Median |  |
| ---: | :---: | :---: | :---: |
| CITY OF CONCORD |  |  |  |
| 0-Bedroom | 38 | $\$ 600-\$ 1,529$ | $\$ 1,123$ |
| 1-Bedroom | 330 | $\$ 621-\$ 1,875$ | $\$ 1,194$ |
| 2-Bedroom | 404 | $\$ 850-\$ 1,968$ | $\$ 1,448$ |
| 3-Bedroom | 84 | $\$ 1,055-\$ 2,615$ | $\$ 1,561$ |
| 4+ Bedrooms | 4 | $\$ 1,695-\$ 2,144$ | $* * * *$ |
| All Bedrooms | 860 | $\$ 600-\$ 2,615$ | $\$ 1,275$ |



|  | Sample Size | Rent Range | Median |
| ---: | :---: | ---: | :--- |
| CITY OF MANCHESTER |  |  |  |
| 0-Bedroom | 138 | $\$ 451-\$ 2,400$ | $\$ 929$ |
| 1-Bedroom | 649 | $\$ 643-\$ 1,895$ | $\$ 1,206$ |
| 2-Bedroom | 931 | $\$ 531-\$ 2,343$ | $\$ 1,546$ |
| 3-Bedroom | 414 | $\$ 867-\$ 2,706$ | $\$ 1,460$ |
| 4+ Bedrooms | 85 | $\$ 1,264-\$ 4,426$ | $\$ 1,589$ |
| All Bedrooms | 2217 | $\$ 451-\$ 4,426$ | $\$ 1,401$ |



| Sample Size | Rent Range | Median |  |
| ---: | :---: | ---: | ---: |
| CITY OF NASHUA |  |  |  |
| 0-Bedroom | 27 | $\$ 664-\$ 1,624$ | $\$ 1,244$ |
| 1-Bedroom | 281 | $\$ 736-\$ 1,955$ | $\$ 1,402$ |
| 2-Bedroom | 758 | $\$ 684-\$ 2,358$ | $\$ 1,742$ |
| 3-Bedroom | 126 | $\$ 1,056-\$ 2,357$ | $\$ 1,877$ |
| 4+ Bedrooms | 23 | $\$ 1,175-\$ 2,107$ | $\$ 1,789$ |
| All Bedrooms | 1215 | $\$ 664-\$ 2,358$ | $\$ 1,652$ |



| Sample Size | Rent Range | Median |  |
| ---: | :---: | :---: | :---: |
| CITY OF PORTSMOUTH |  |  |  |
| 0-Bedroom | 10 | $\$ 720-\$ 1,886$ | $* * * *$ |
| 1-Bedroom | 75 | $\$ 766-\$ 2,186$ | $\$ 1,665$ |
| 2-Bedroom | 225 | $\$ 1,213-\$ 3,413$ | $\$ 1,881$ |
| 3-Bedroom | 67 | $\$ 1,060-\$ 3,785$ | $\$ 1,587$ |
| 4+ Bedrooms | 2 | $\$ 2,130-\$ 3,747$ | $* * * *$ |
| All Bedrooms | 379 | $\$ 720-\$ 3,785$ | $\$ 1,881$ |



|  | Sample Size | Rent Range | Median |
| ---: | :---: | :---: | :---: |
| CITY OF ROCHESTER |  |  |  |
| 0-Bedroom | 11 | $\$ 640-\$ 1,042$ | $* * * *$ |
| 1-Bedroom | 100 | $\$ 692-\$ 1,680$ | $\$ 1,031$ |
| 2-Bedroom | 200 | $\$ 848-\$ 2,200$ | $\$ 1,259$ |
| 3-Bedroom | 42 | $\$ 791-\$ 1,997$ | $\$ 1,472$ |
| 4+ Bedrooms | 7 | $\$ 1,457-\$ 2,157$ | $* * * *$ |
| All Bedrooms | 360 | $\$ 640-\$ 2,200$ | $\$ 1,244$ |



## MEDIAN MONTHLY GROSS RENTS FOR 2-BEDROOM UNITS - HUD HMFA

Metropolitan Statistical Areas
HMFA (HUD Metropolitan Fair Market Rent Area) designations were established by the U.S. Department of Housing and Urban Development as a result of information gathered from the 2010 Census.


Includes Antrim, Bennington, Deering, Francestown, Greenfield, Hancock, Hillsborough, Lyndeborough, New Boston, Peterborough, Sharon, Temple, Windsor


Includes Bedford, Goffstown, Manchester, Weare


Includes Amherst, Brookline, Greenville, Hollis, Hudson, Litchfield, Mason, Merrimack, Milford, Mont Vernon, Nashua, New Ipswich, Pelham, Wilton

| Sample Size | Rent Range | Median |  |
| ---: | ---: | ---: | ---: |
| PORTSMOUTH-ROCHESTER, NH HMFA |  |  |  |
| 0-Bedroom | 40 | $\$ 640-\$ 1,886$ | $\$ 942$ |
| 1-Bedroom | 505 | $\$ 545-\$ 2,195$ | $\$ 1,180$ |
| 2-Bedroom | 1,181 | $\$ 848-\$ 3,413$ | $\$ 1,554$ |
| 3-Bedroom | 223 | $\$ 791-\$ 3,785$ | $\$ 1,587$ |
| 4+ Bedrooms | 30 | $\$ 1,422-\$ 3,747$ | $\$ 2,117$ |
| All Bedrooms | 1,979 | $\$ 545-\$ 3,785$ | $\$ 1,486$ |



[^2]
## MEDIAN MONTHLY GROSS RENTS FOR 2-BEDROOM UNITS - HUD HMFA

| Sample Size | Rent Range | Median |  |
| ---: | :---: | ---: | :--- | :---: |
| WESTERN ROCKINGHAM COUNTY, NH HMFA |  |  |  |
| 0-Bedroom | 1 | \$798 $-\$ 798$ | $* * * *$ |
| 1-Bedroom | 25 | $\$ 700-\$ 2,561$ | $\$ 1,324$ |
| 2-Bedroom | 250 | $\$ 1,053-\$ 2,447$ | $\$ 1,494$ |
| 3-Bedroom | 9 | $\$ 1,291-\$ 1,849$ | $* * * *$ |
| 4+ Bedrooms | 0 | $\$ 0-\$ 0$ | $* * * *$ |
| All Bedrooms | 285 | $\$ 700-\$ 2,561$ | $\$ 1,494$ |



Includes Auburn, Candia, Deerfield, Londonderry, Northwood, Nottingham

| Sample Size | Rent Range | Median |  |
| ---: | :---: | :---: | :---: | :---: |
| BOSTON-CAMBRIDGE-QUINCY, MA-NH HMFA |  |  |  |
| 0-Bedroom | 0 | $\$ 0-\$ 0$ | $* * * *$ |
| 1-Bedroom | 18 | $\$ 1,235-\$ 1,629$ | $* * * *$ |
| 2-Bedroom | 63 | $\$ 1,491-\$ 2,043$ | $\$ 1,586$ |
| 3-Bedroom | 1 | $\$ 2,291-\$ 2,291$ | $* * * *$ |
| 4+ Bedrooms | 1 | $\$ 1,991-\$ 1,991$ | $* * * *$ |
| All Bedrooms | 83 | $\$ 1,235-\$ 2,291$ | $\$ 1,586$ |



Includes Seabrook, South Hampton

|  | Sample Size | Rent Range | Median |
| ---: | :---: | :---: | :---: | :---: |
| LAWRENCE, MA-NH HMFA |  |  |  |
| 0-Bedroom | 31 | $\$ 543-\$ 1,770$ | $\$ 878$ |
| 1-Bedroom | 246 | $\$ 785-\$ 2,006$ | $\$ 995$ |
| 2-Bedroom | 241 | $\$ 777-\$ 2,485$ | $\$ 1,642$ |
| 3-Bedroom | 56 | $\$ 946-\$ 2,811$ | $\$ 1,952$ |
| 4+ Bedrooms | 0 | $\$ 0-\$ 0$ | $* * * *$ |
| All Bedrooms | 574 | $\$ 543-\$ 2,811$ | $\$ 1,347$ |



Includes Atkinson, Chester, Danville, Derry, Fremont, Hampstead, Kingston, Newton, Plaistow, Raymond, Salem, Sandown, Windham

[^3]New Hampshire Housing's Policy, Planning and Communications Group focuses on researching, surveying and identifying the state's housing needs and conditions. It also provides technical assistance and information to local governments and the public on housing-related matters. Additionally, it administers grant programs to support non-profits engaged in affordable housing activities.


## HOUSING ADVOCACY AND GRANTS

New Hampshire Housing provides funding to support local housing advocacy and public education activities. We also focus on engaging partners such as local and regional chambers of commerce and economic development organizations. The state's network of workforce housing coalitions, along with Housing Action NH, are key to raising awareness about the need for a diverse and affordable range of housing in our communities. New Hampshire Housing provides grants to support the housing coalitions such as Vital Communities (Upper Valley); Workforce Housing Coalition of the Greater Seacoast; Mt. Washington Valley Housing Coalition, and Regional Economic Development Center.

## MUNICIPAL TECHNICAL ASSISTANCE GRANT PROGRAM

To provide towns and cities with assistance to address locally identified planning needs, New Hampshire Housing partners with Plan NH to administer the Municipal Technical Assistance Grant Program. Municipalities may apply for grants of up to \$25,000. A cash and/or in-kind match of $15 \%$ of the grant amount is required to participate in the program. Additionally, staff provide direct technical assistance to municipalities upon request.

New Hampshire Housing published A New Hampshire Homeowner's Guide to Accessory Dwelling Units in 2018 and an ADU guide for local officials in 2017. These guides provide assistance in implementing the Accessory Dwelling Unit statute (RSA 674:71-73). The intent of that law is to expand affordable housing options in New Hampshire communities by encouraging the efficient use of existing housing stock and infrastructure.

## HOUSING CONFERENCES AND WEBINARS

Each year, New Hampshire Housing hosts a series of conferences and webinars for the financial, real estate, lending, development, nonprofit, and other housing-related sectors, as well as public officials and business leaders. These events encourage discussion about ways to address the Granite State's affordable housing and economic development needs. In 2021 we are hosting webinars and seminars on post-pandemic multi-family housing design, the economic impact of different types of land use, and topics on housing and the economy. We also sponsor housing events such as a webinar on retrofitting malls and commercial buildings into housing and mixed-use developments.

## HOUSING-RELATED STUDIES, GUIDES AND REPORTS

- Analysis of Impediments to Fair Housing Choice in New Hampshire (2020)
- Taxes, Land Use \& Value in 15 NH Communities - Analysis by Joe Minicozzi, Urban3
- Housing Solutions Handbook (updated 2019)
- A New Hampshire Homeowner's Guide to Accessory Dwelling Units (2018)
- Accessory Dwelling Units in New Hampshire: A Guide for Municipalities (2017)
- Affordable Rental Housing Developments: Characteristics of Residents of New Hampshire Low-Income Housing Tax Credit Apartments (2017)
- Housing Needs in NH (NH Center for Public Policy Studies) (2014)
- Community Planning Grant Case Studies (2014)
- Information Briefs: A Planning Resource for Municipalities (2014)
- New Hampshire Employer Survey (2014)


## OTHER NEW HAMPSHIRE HOUSING PUBLICATIONS

- Annual Report
- Financial Statements and Independent Auditor's Report
- Strategic / Program Plan
- Annual Residential Rental Cost Survey (and Utility Allowance Survey)
- Housing Market Report (Spring - Fall)
- Housing Market SNAPSHOT
- HUD Required Consolidated Plan / Action Plan
- State Biennial Housing Plan (every 2 years)
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# Property Taxes and Residential Rents 

## Leah J. Tsoodle

\&

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#### Abstract

Property taxes are a fundamental source of revenue for local governments, comprising $73 \%$ of local government tax revenue in the United States. In this paper, we empirically investigate the impact of residential property taxes on residential rents. Using data from the American Housing Survey and the National League of Cities, we estimate numerous specifications of a hedonic rent equation with comprehensive unit-level, neighborhood-level and city-level controls. We find that a one standard deviation increase in the property tax rate raises residential rents by roughly $\$ 400$ annually.


[^4]
## I. Introduction

Property taxes are a fundamental source of revenue for local governments, comprising $73 \%$ of local government tax revenue in the United States (Statistical Abstract, 2006), and an extensive literature examines their economic impacts. By extending and empirically testing the Tiebout (1956) model, much of this research investigates the extent to which property taxes and public services are capitalized into house prices, and whether household mobility and local government competition can lead to an efficient provision of local public services. Dowding, John and Biggs (1994) and Zodrow $(2001,2006)$ provide excellent reviews of the literature and insights into the three views of property tax incidence: the traditional view, capital tax view and benefits view. Although the three views generate alternative predictions of who ultimately bears the economic incidence of the property tax, each view implies the possibility that property taxes may be capitalized into local house prices, residential rents and wages (Zodrow, 2001).

There is a large body of empirical research that examines the impact of property taxes in markets where the user of housing services and the property owner are one in the same: the owneroccupier. In particular, the extent of capitalization of property taxes into house prices has been examined in numerous studies, and there is consensus that such capitalization occurs: if two communities have a similar provision of public services, but different effective property tax rates, then the community with the higher property taxes will have lower house values, all else equal. Indeed, recent research suggests fairly high house-price capitalization rates (Palmon and Smith, 1998a, 1998b), confirming that higher property taxes lower buyer willingness to pay and result in lower equilibrium house prices.

This paper provides a first examination of the impact of property taxes in markets where the user of housing services and the property owner are not the same individual. We examine the
impact of such taxes on tenants: those who use the housing services, but do not own the property. The finding from other studies that property taxes reduce house prices ceteris paribus suggests there may be long run impacts on residential rents through changes in the local housing stock, and we empirically investigate the impacts on local residential rents. We do so by examining the rental market directly. Using housing unit data from American Housing Survey data for a sample of U.S. cities in 1999, 2001, and 2003, and city-level data provided by these cities, we estimate multiple specifications of a hedonic rent equation that controls for detailed unit attributes, neighborhood attributes, and city-level expenditure data on public services to identify the impact of effective tax rates on rents.

The extent to which property taxes impact residential rents is an important question. Daskal (1998) examines housing conditions in 45 metropolitan areas and finds record growth in the number of low-income renter households and the shortage of affordable housing units. If local property taxes contribute to higher tenant costs then they are also contributing to the shortage of affordable rental units. In terms of the broader economic incidence of the tax, if housing consumption is proportional to household income, then according to the traditional view of the property tax literature, the portion of the tax falling on structures constitutes a proportional tax. If the Tiebout model applies, then the property tax is considered a benefits tax. However, low-income renters may be less mobile that higher income households, suggesting a more regressive impact of the property tax. Understanding the extent to which property taxes are passed through to renters through higher rents thus has important policy implications regarding the use of taxes on residential property to fund local government services. The rest of the paper is organized as follows. Section II provides background on the capitalization literature and the process by which higher property taxes result in higher residential rents. Section III details our
data and econometric approach. Section IV presents our empirical results, and section V concludes.

## II. Background

## House-Price Capitalization Literature

There is a vast amount of empirical work investigating the impact of property taxes on house prices, beginning with the work of Oates (1969), who finds that property taxes and the value of public services are capitalized into house prices. Several studies by $\operatorname{Ihlanfeldt}(1982,1984$, and 2004) are consistent with Oates' capitalization findings. Yinger, Bloom, Borsch-Supan and Ladd (1988) provide a comprehensive review of the property tax literature as well as generate their own estimates of the impact of property taxes on house values, controlling for other factors, in seven Massachusetts cities. They conclude that the capitalization rate varies by communities and ranges from 16 percent to 31 percent: that is, for every $\$ 1$ increase in the present value of the stream of property tax payments on the house, the value of the house is decreased by 16 cents to 31 cents. More recent research by Palmon and Smith (1998a, 1998b) finds that capitalization of the property tax into the housing rent-to-value ratio is between 62 and 100 percent. A capitalization rate of 100 percent implies that the long-run rent-to-price ratio will fall by the same percent as the decrease in property taxes. Palmon and Smith's approach does not allow them to identify the separate impact on rental costs. Nonetheless, this high rate of capitalization for the rent-to-value ratio suggests that the amount of property tax passed onto the renter may be substantial.

## Process of Capitalization

Taxing residential property may result in higher residential rents. To see why this is so,
consider the standard model of local housing market dynamics. ${ }^{1}$ In the short run, implementing or raising a property tax decreases the consumer's willingness to pay for new or expanded housing according to the present discounted value of the tax liability. For example, suppose that a house is expected to generate $\$ 12,000$ in housing services for 25 years net of existing property taxes. If the housing market is competitive and assuming a discount rate of $10 \%$ on future housing services, then a buyer would be willing to pay $\$ 108,924$ for the home. ${ }^{2}$ Now consider an increase in the property tax burden of $\$ 500$ per year. The buyer's willingness to pay will fall by the present value of all the additional future tax payments, and the buyer's new willingness to pay for the home is equal to only $\$ 104,386$.

The stock of housing is fixed in the short run, thus the tax results in disequilibria in the housing market. Because supply is fixed, the price of housing falls by exactly the amount of the tax liability. This constitutes full capitalization of the tax into house prices. ${ }^{3}$ To the extent that the supply side of the market can adjust, however, the tax may or may not remain fully capitalized. The local suppliers of housing who supply at marginal cost suffer short run losses and disinvest in the local housing market. The long-run stock of housing decreases until normal accounting profits are restored.

If the housing industry is a constant cost industry, then the long run supply of housing is perfectly elastic, and, in the long run, the equilibrium purchase price of housing will return to its

[^5]pre-tax change level. ${ }^{4}$ The long run equilibrium price of housing is thus unchanged by the tax policy and, in this case, there is zero long-run capitalization of the tax break. This would not be the case if the housing industry is not constant cost or is subject to local growth restrictions. Whatever the structure of the housing industry, the tax generates a decrease in the housing stock. Because of the resulting smaller flow of housing services, the rental value on a given unit will be higher than the pre-tax change level. The long-run process is reflected in the change in the ratio of rental cost to purchase price. We examine the impact of a change in property taxes on rental values directly - comparing long-run equilibriums across cities, to identify the extent of the pass through of the tax change to renters.

## III. Data and Econometric Model

We use two datasets in our analysis: (i) unit-level data from the American Housing Survey (AHS); and (ii) city-level data from the National League of Cities (2005) for years 2001 and 2003 and from the cities themselves for 1999. We discuss each of these datasets in turn. The AHS, conducted by the U.S. Bureau of the Census, consists of two surveys, a national AHS survey and a metropolitan survey, that differ geographically and temporally. The national survey interviews a random sample of housing units across the United States every other year. The metropolitan survey is a random sample of housing units in forty-four metropolitan statistical areas (MSAs). Households in the metropolitan survey are sampled on a rotating basis, with approximately eleven MSAs surveyed in any given year. Both surveys sample new construction. Thus the samples grow over time and continue to be representative of the housing stock (Turner, 2003). An advantage of the AHS for estimating hedonic rent equations is the wealth of unitlevel and neighborhood-level data collected in the survey.

[^6]We select data from both AHS surveys and include housing units in primarily
Midwestern cities in the years 1999, 2001, and 2003. We select all Midwestern cities in the national sample that do not substantial geographical features limiting urban growth and that have at least 100 rental units surveyed per year. In addition, we add into our sample renters in Denver and Oklahoma City to boost sample size. ${ }^{5}$ We select single-detached and multiplex rental units, and we exclude mobile homes and condominium units due to the possibility that the rent includes additional fees for landlord-supplied services such as yard maintenance. In addition, we delete rental units with a 2003-inflation-adjusted rent of less than $\$ 600$ per year or having square footage over 10,000 square feet. The resulting sample consists of 7,902 rental units across the 14 cities and three survey years.

## Effective Property Tax Rates

To examine the impact of property taxes on residential rents, we need a measure of the effective property tax rate on residential rental properties. However, the AHS only collects property tax and property value data for owner-occupied properties. No such data are collected by the AHS for rental properties. Since we do not have the data to generate a renter-specific, effective property tax rate measure, we create a city-level measure using the property tax data for owner-occupied units in the AHS. Data cleaning of homeowners includes deleting homes valued at less than $\$ 10,000$ from the sample, as well as those reporting less than $\$ 500$ of property taxes paid per year, giving us over 18,000 homeowners in the 14 cities at three points in time. We first compute the annual effective tax rate on each owner-occupied unit as total real estate taxes

[^7]reported on the unit divided by house value. We then compute the city-level average effective tax rate by taking the average of the homeowners' effective tax rates. Thus, to identify the impact of effective property tax rates on residential rents, we will use variation in the tax measure across cities and over time, while netting out the impacts of unit attributes and neighborhood attributes.

Because the effective tax rates on owner-occupied and rental properties will differ when there is property tax relief provided to owner-occupiers and not to landlords, we check whether such state-level property tax relief may skew our tax measure, and we find that it does not. The units in our sample are indeed located in states that provide property tax relief for homeowners through such programs as the so called circuit-breaker program. ${ }^{6}$ However, this does not pose a problem for our analysis as the relief in these states is provided in the form of a rebate or income tax credit, and the AHS reports the pre-relief level of real estate taxes owed.

The use of effective tax rates on owner-occupied properties as a proxy for the rates on rental properties may be problematic, however, if the stocks of owner-occupied and rental housing differ. We first check for differences in the composition of housing in our sample. We find that the stocks of rental and owner occupied housing are similar in age and adequacy. The fractions built according to four age categories (prior to 1930; from 1930 to 1970; from 1970 to 1990; and after 1990) are nearly identical for rental and owner-occupied units. Regarding adequacy, in our sample $97 \%$ of owner occupied housing is rated as adequate, and $90 \%$ of the rental units are rated as adequate. (As we describe below, a unit is deemed adequate based on the physical condition of the housing unit as assessed by the AHS interviewer).

We also check for differences in the type of housing: single family detached units versus multi-unit properties. Here the stocks of rental and owner occupied housing differ in our

[^8]samples. $97 \%$ of the sample of owner-occupied units are single-family detached whereas only $25 \%$ of the sample of the rental units are single-family detached units. However, we nonetheless use the effective property tax rates for single-family, owner-occupied units as a proxy for the effective tax rates on rental units in the hedonic rent equations since no data are available that includes both rents and rental-unit specific property taxes. ${ }^{7}$

## Expenditure Data

We expect that residential rents will be higher in cities that provide amenities, all else equal. Moreover, controlling for the provision of local government services allows us to identify the impact of property taxes on rents, net of these services. We focus on expenditure categories that directly affect quality of life. Specifically, we focus on four broad categories of expenditure (expressed per capita): parks, recreation and culture; police and fire protection; public works such as maintenance on sanitation, water, sewer and transportation; and economic development. We obtain the expenditure data for 2001 and 2003 from the National League of Cities (2005). In accordance with federal regulations implemented in 2000, cities must annually complete a Comprehensive Annual Financial Report (CAFR). Expenditure data for many cities are collected from these reports and published by the NLC. The 1999 data, however, are not available from the NLC, so we contacted the city governments directly for these data. ${ }^{8}$

## Econometric Approach

We examine the impact of property taxes on residential rents using two approaches: (i) a

[^9]two-stage estimation strategy that separates the unit-level analysis and city-level analysis; and (ii) a one-stage estimation procedure that includes both unit and city level controls in the same regression and implements a cluster correction. ${ }^{9}$ The econometric results, especially the key findings, are affected very little or not at all by our choice of econometric method, and we thus present the twostage estimation strategy and results in the paper. The one-stage estimation results are available upon request.

## Two-Stage Hedonic Rent Model

The first stage uses the AHS rental unit data to estimate the average rent in a city at a point in time, net of rental unit attributes and neighborhood characteristics. We include city/time binary variables to control for the unit being in a particular city at a particular point in time and allow for rental markets to differ across cities and years. The second stage uses city-level data and regresses the average rents from the first stage on the city-level variables, including the effective property tax rate. The first stage estimation is at the level of the housing unit:

$$
\begin{equation*}
R_{i j t}=\alpha+X_{i j t}^{\prime}{ }^{\prime} \beta+Z_{i j t}^{\prime} ' \theta+\sum_{\substack{j=1 \\ t=1}}^{\substack{T=3 \\ J=14}} \gamma_{j t} * C_{j} * D_{t}+u \tag{1}
\end{equation*}
$$

where $R_{\mathrm{ijt}}$ is the rental price on housing unit $i$ in city $j$ at time $t . X$ is a vector of attributes of the rental unit and includes: the number of baths and rooms in the unit, the square footage of the unit, the adequacy of the unit, and amenities of the unit (central air, working fireplace, parking, balcony,

[^10]and the lot size for detached units). ${ }^{10}$ The adequacy variable equals one if the unit is deemed adequate and based on the physical condition of the housing unit as assessed by the AHS interviewer. ${ }^{11}$ The parking variable is a binary variable indicating whether the unit has reserved or covered parking. Increases in or additions of these variables are expected to increase the rental price on the unit. We also control for the age of the unit using four indicator variables: built before 1930, between 1930 and 1970, between 1970 and 1990, and after 1990. We include both multiplex rental units and detached units in the sample, and control for the difference in these types of units with an indicator variable equaling one if the unit is detached and zero otherwise.

It may be that some amenities are more valuable in either hot or cold climates. To allow for this, we estimate a specification that controls for the following interaction variables: (i) air conditioning and hot summer temperatures, where a city is deemed hot if it has an average July temperature exceeding 86 degrees (Fahrenheit); (ii) working fireplace and cold winter temperatures, where cold constitutes an average low temperature in January of 17 degrees (Fahrenheit) or less; and (iii) parking and cold winter temperatures. We expect that fireplaces will be more valued in colder climates, but this may not be the case if the presence of a fireplace in a rental unit is picking up strictly an income effect. Fireplaces are common in warmer climates in coastal areas, for example.
$Z$ is a vector of attributes of the neighborhood of the rental unit and includes the following binary variables: if the unit is located in the center of the city; if the neighborhood has crime; if the neighborhood has bad odor; and whether there is green space or water within $1 / 2$ a block of the rental unit. Each of these is constructed based on the resident's response. For example, the crime variable

[^11]equals one if the respondent answers yes to the AHS question, "Is there crime in this neighborhood?" and zero otherwise. Although the subjective nature of these data is a limitation, they are the only neighborhood controls we have available that capture crime and amenities. In addition, we control for whether the neighborhood is "poor quality" in general as measured by the presence of any one of the following: abandoned buildings, bars on windows, or trash in the streets; or the unit is adjacent to a four-lane highway, a railroad or an airport. The poor quality measure is an objective measure based on the AHS surveyor's observations of the neighborhood.
$J$ is the number of cities in the sample, $C_{\mathrm{j}}$ represents the city binary variables, and $D_{t}$ represents the binary variables for the three time periods examined. The $\gamma_{\mathrm{jt}}$ represent the coefficients on the city/year interaction terms to be estimated. The 14 cities at three points in time thus generate 42 city/year binary coefficients. The resulting city/time coefficient estimates $\left(\gamma_{\mathrm{jt}}\right)$ provide a measure of the average rental price in city $j$ at time $t$, net of housing unit and neighborhood attributes.

In the second stage, the estimated city/time coefficients are regressed on effective property tax rates and local government expenditures on public goods such as water treatment, parks, and fire and police protection. We control for the extent of restrictions on housing expansion using the Malpezzi index. Specifically, we construct a binary variable, REG, that indicates if a city has a relatively high degree of regulation. It equals one if the value of the Malpezzi index for the city exceeds the sample average value and zero otherwise. ${ }^{12}$ For city $j$ at time $t$, we have:

$$
\begin{equation*}
\gamma_{j t}=\alpha_{0}+\alpha_{1} P_{T A X}^{j t}+\alpha_{3} R E G_{j}+W_{j t}{ }^{\prime} \delta+\varepsilon \tag{2}
\end{equation*}
$$

[^12]The coefficients on each of the explanatory variables in equation (2) represent the change in average city rents with respect to a change in effective property tax rates, the extent of regulation, and the various expenditures categories, denoted by the vector $W_{\mathrm{jt}}$. This approach allows us to identify the impact of property taxes ceteris paribus on residential rents. An $\alpha_{1}$ that is positive and statistically significant indicates that the effective property tax rate increases residential rents. We expect positive signs on all of the expenditure coefficients. Increases in city expenditures are expected to improve quality of life and thereby increase rents. We expect that greater regulation will lead to less growth in a city's housing stock and thus higher rents all else equal.

Note that the second stage estimates are based on estimates of the city/year interaction variables. This implies that the error term in the second stage includes both a true error component and a component due to the sampling error from the first stage, and thus the second stage errors will not have constant variances (for example, see Page, 1995). Instead, the variances will depend on the accuracy of the first stage regression. Following Page, in order to efficiently estimate equation (2), we weight each observation by the inverse of the square root of the sum of the estimated variances of each component.

We estimate multiple versions of both the first stage and the second stage models, including first-stage specifications that are run in linear and $\log$ form. All variables expressed in dollar terms are adjusted to 2003 dollars. To do so, ideally, one would use a non-shelter, renter CPI to deflate rents in the first stage model. However, the Bureau of Labor Statistics (BLS) does not provide such an index. Instead, the BLS provides two related deflators: the Renter Consumer Price Index (CPI), which tracks inflation in the goods and services bought by renters, and the BLS non-shelter CPI, which tracks inflation in all non-housing goods and services bought by both renters and homeowners. Arguments can be made for use of one over the other. We run
the models based on each deflators. We report only a subset of the results in the next section, but it should be noted that our key findings are robust to these various specifications.

## IV. Results

## Household Level

We first present the unit-level hedonic rent equations, based on 7,902 rental units. Means for the entire sample of rental units and those in high and low effective property tax rate cities are shown in table 1. The mean effective property tax rate for the sample is roughly $1.5 \%$. A unit is considered to be in high tax (low tax) city if the city-level effective tax rate lies above (below) the sample mean across cities. Rents are reported in 2003 real dollars, using the BLS Renter CPI.

Referring to table 1 , the mean real annual rent in the sample is $\$ 7,347$, with a range from $\$ 600$ to $\$ 34,580$. The mean number of bathrooms, rooms, and square footage are $1.12,4.3$, and 1,002 , respectively. Forty-one percent of the rental units have central air conditioning. A working fireplace, covered parking, and some sort of balcony are present in $8 \%, 85 \%$, and $61 \%$, respectively, of the rental units in the sample. Eighty-nine percent of the rental units in the sample are considered adequate, according to the AHS surveyor. The average lot size for detached units is 13,448 square feet, and $24 \%$ of the units in the sample are detached units. Most rental units, $42 \%$, were built between 1930 and 1970. Pre-1930s units comprised $19 \%$ of the sample, and units built between 1970 and 1990, as well as those built post-1990 made up the rest of the sample at $31 \%$ and $8 \%$, respectively. Over $72 \%$ of the rentals are classified as central city units, and about $27 \%$ of the rental neighborhoods have crime. Eighteen percent have bad odors, and over $42 \%$ are designated as poor quality neighborhoods, as defined previously. The fraction
of rental units close to a green space is $33 \%$, and $14 \%$ are near a body of water. About $19 \%$ of the sample rental units in hot areas have central air conditioning. Roughly $2 \%$ and $29 \%$ of units in cold areas have a working fireplace and covered parking, respectively.

Table 2 reports the regression results for the hedonic models. Each model includes the city/year binary variables. ${ }^{13}$ The model we report as the base model has controls for unit attributes, neighborhood attributes, interaction variables as well as the city/time indicator variables. In model (2), we exclude the fireplace, air conditioning and parking interaction variables. In our sample of 7,902 rental units, using the $\$ 600$ annual rent as a sample restriction results in 537 rental units, or $7 \%$ of the sample, in which the occupant(s) receive some form of government assistance to pay their AHS reported rents. We control for this in model (3), which includes a binary variable equaling one if the household receives government rental assistance and zero otherwise. Model (4) reports the hedonic model using the log of rents as the dependent variable.

We focus our discussion on the results that are robust across models. Most of the results are robust and as expected. The coefficients on number of bathrooms, number of rooms, square footage, central air, fireplace, unit being built between 1930 and 1970 (relative to after 1990) and unit being built between 1970 and 1990 (relative to after 1990) are all positive and statistically significant across models. An additional bathroom, having air conditioning, or having a fireplace each have particularly large impacts on rental prices. For example, a unit with a fireplace rents for $\$ 660$ to $\$ 1,050$ more per year, all else equal, depending on the model, with the log model impacts computed using the sample average rent of $\$ 7,347$ annually. The square footage variable also has a fairly sizable impact. Referring to model (1), an additional 1000 square feet raises the rental price by roughly $\$ 300$ annually in the linear models and $\$ 230$ annually in the log

[^13]models. The year-built indicators have sizable impacts across models and may be reflecting a location advantage, with the units built between 1930 and 1990 being nearer to city amenities than units built after 1990, and thereby commanding higher rents.

The coefficients on the binary variables representing crime, odor and poor quality neighborhood in table 2 are negative, statistically significant and economically meaningful across models. The units in neighborhoods with crime, for example, rent for roughly $\$ 400$ less per year. Being located near a green space or body of water significantly increases the rental value of a unit. For example, units located near a green space rent for $\$ 204$ more per year, and units near a body of water rent for $\$ 440$ more per year, all else equal, according to model (1). Contrary to expectations, covered or reserved parking is not statistically significant. The control variables for balcony, adequacy, detached lot size, detached unit, central city and the interaction terms are also not statistically significant in all models. The air conditioning, fireplace and parking interaction variables are not consistently significant and referring to model (2), we see that excluding them from the analysis has little impact on the other estimated coefficients. Note that in model (3), with a statistically significant coefficient of minus $\$ 1,643$, the rent subsidy variable indicates that rental units occupied by households receiving rental assistance command a substantially lower rent, all else equal.

## City Level

Forty-two observations are included in the city-level sample for the 14 cities at three time periods (1999, 2001, and 2003). Means for the entire sample of cities and by property tax status are shown in table 3, with all dollar values expressed in 2003 dollars using the Renter CPI. At the city level, the mean effective tax rate is about $1.4 \%$ and ranges from $0.1 \%$ to $2.3 \%$ for the entire sample. The standard deviation is $0.34 \%$. The mean annual expenditure on public safety
is over $\$ 340$ million and ranges from $\$ 62$ million to $\$ 1.65$ billion. The mean expenditure on public works, including streets and sanitation, transportation, water, and sewer, ranges from about $\$ 30$ million to over $\$ 1.1$ billion, with a mean of $\$ 210$ million. The average amount spent on cultural and recreational activities for citizens is about $\$ 52$ million, ranging from $\$ 0$ to over $\$ 153$ million. City expenditures on economic development range from $\$ 0$ to over $\$ 234$ million, with a mean of about $\$ 59.4$ million. The city regulation index averages 18.2 with a minimum of 13 and maximum of 22 , with higher values of the index indicating greater regulation.

Table 4 reports the second stage estimates. Note that second-stage models reported in table 4 correspond directly to the first-stage models reported in table 2 . Each of the second-stage models controls for the effective property tax rate, per capita government expenditures and the regulatory status of the city. Referring to table 4, we see that, across models, the coefficient on the effective tax rate is positive, significant and robust. To interpret the magnitude of the coefficient estimates, we consider the impact on rents of a one standard deviation increase in property tax rate: an increase of $0.34 \%$ in the property tax rate from its sample mean of $1.4 \%$ increases rents by an amount between $\$ 402$ and $\$ 451$ annually. ${ }^{14}$ The expenditure coefficients are not statistically significant except in model (1), where per capita expenditures on public works have a negative impact, and expenditures on culture and recreation have a positive impact on city rents, all else equal. The lack of significance is likely because the expenditure variables are correlated with one another. Surprisingly, the regulation control indicates that cities with greater regulation, as measured by a value of the Malpezzi index exceeding 18.2, results in substantially lower rents. This negative correlation may be occurring because the Malpezzi

[^14]index primarily captures the speed of residential zoning approval and permit issuance, which may occur more slowly in cities with large housing stocks.

## V. Conclusion

Property taxes provide the primary source of revenue for local governments in the U.S., yet we have little understanding of the extent to which such taxes result in higher residential rents. Studies examining the capitalization of property taxes into house prices suggest that the residential rent impacts may be significant. Using data from the American Housing Survey and fourteen cities over time, this paper finds that this is indeed the case. Using multiple estimation strategies, including a two-stage hedonic approach and a one-stage model with cluster correction, both including comprehensive unit-level, neighborhood-level and city-level controls, and we find that a one standard deviation increase in the property tax rate raises residential rents by between $\$ 402$ and $\$ 450$ annually. In light of the preferential tax treatment of certain types of property in the U.S such as agricultural land (Tsoodle, 2005), these results are particularly pertinent for urban metropolitan areas and counties with significant acreage zoned non-residential. ${ }^{15}$

Reducing the preferential treatment of other types of property and using the revenue gains to reduce residential property taxes may allow cities and counties to achieve lower residential rents. Future research should examine the extent to which the current tax structure for local government financing thus presents an undue burden on urban renters.

[^15]
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## Appendix: Imputation of Missing Square Footage Data.

Approximately 3,000 multiplex rental units are missing square footage data. To use these observations, we impute the missing square footage data by using the data reported on the approximately 3,500 multiplex units with square footage data. The model used to impute square footage for the missing data is:

$$
\begin{equation*}
\text { UNITSF }=\sum_{i=1}^{n} X^{\prime} \beta . \tag{A1}
\end{equation*}
$$

Here UNITSF is the square footage of the $i^{\text {th }}$ rental unit. X is a vector of attributes that we expect will impact square footage and includes: the total number of rooms, bathrooms, half bathrooms, dining rooms, living rooms, and dens. We also include a binary variable for the presence of a laundry room, and we control the age of the unit, which we incorporate as three binary variables: built before 1970, between 1970 and 1990, and after 1990. Notice that equation (A1) includes several variables not present in the first-stage hedonic model. The R-squared for equation (A1) is 0.67 . We estimate equation (A1) for multiplex units only and use the fitted equation to predict the square footage for the 3000 multiplex units for which we are missing data.

Table 1.
Sample Means. American Housing Survey.
Rental Units in Primarily Midwestern Cities in 1999, 2001 and 2003.

| Variable Definition | All <br> Renters | Renters <br> High Tax | Renters <br> Low Tax |
| :--- | :---: | :---: | :---: |
| Annual rent | 7,347 | 7,552 | 7,105 |
| Number of bathrooms | 1.12 | 1.10 | 1.14 |
| Unit square footage | 4.27 | 1,017 | 984 |
| Number of rooms | 0.41 | 0.31 | 4.22 |
| Central air conditioning | 0.08 | 0.06 | 0.49 |
| Fireplace | 0.85 | 0.80 | 0.11 |
| Parking | 0.61 | 0.61 | 0.62 |
| Balcony | 0.89 | 0.88 | 0.91 |
| Adequate units | 13,448 | 13,853 | 12,970 |
| Lot size for detached units | 0.24 | 0.20 | 0.30 |
| Detached unit | 0.19 | 0.21 | 0.17 |
| Built prior to 1930 | 0.42 | 0.43 | 0.41 |
| Built between 1930 and 1970 | 0.31 | 027 | 0.35 |
| Built between 1970 and 1990 | 0.08 | 0.09 | 0.07 |
| Built after 1990 | 0.72 | 0.83 | 0.59 |
| Central city | 0.27 | 0.29 | 0.25 |
| Crime | 0.18 | 0.08 | 0.08 |
| Odor | 0.42 | 0.44 | 0.39 |
| Poor quality | 0.33 | 0.30 | 0.37 |
| Green space | 0.14 | 0.14 | 0.15 |
| Body of water | 0.19 | 0.01 | 0.39 |
| Central Air conditioning * hot temperature | 0.02 | 0.01 | 0.02 |
| Fireplace * cold temperature | 0.29 | 0.30 | 0.29 |
| Parking * cold temperature | 7,902 | 4,272 | 3,630 |
| Sample size | 0.3 |  |  |

Note: the rent and income variables are adjusted to 2003 dollars using the Urban Rental CPI.

Table 2.
Hedonic Rent Estimations.
AHS Renter Households in 14 cities, 1999, 2001 and 2003.

| Variables | (1) <br> Base <br> Model | (2) <br> Exclude Interaction Terms | (3) <br> Rent <br> Subsidy <br> Control | $(4)$ Log(Rent) |
| :---: | :---: | :---: | :---: | :---: |
| Number of bathrooms | $\begin{gathered} 1969.4^{* * *} \\ (107.7) \end{gathered}$ | $\begin{gathered} 1987.2^{* * *} \\ (107.8) \end{gathered}$ | $\begin{gathered} \text { 1931.37*** } \\ (106.69) \end{gathered}$ | $\begin{gathered} 0.19 * * * \\ (0.02) \end{gathered}$ |
| Number of rooms | $\begin{gathered} 414.8 * * * \\ (32.30) \end{gathered}$ | $\begin{gathered} 413.9 * * * \\ (32.32) \end{gathered}$ | $\begin{gathered} 412.95 * * * \\ (31.97) \end{gathered}$ | $\begin{gathered} 0.06 * * * \\ (0.005) \end{gathered}$ |
| Unit square footage (in thousands) | $\begin{gathered} 300 * * * \\ (500) \end{gathered}$ | $\begin{gathered} 295 * * * \\ (544) \end{gathered}$ | $\begin{gathered} 281 * * * \\ (538) \end{gathered}$ | $\begin{gathered} 0.032 * * * \\ (0.008) \end{gathered}$ |
| Central air | $\begin{gathered} 1916.3^{* * *} \\ (98.78) \end{gathered}$ | $\begin{gathered} 1665.4^{* * *} \\ (83.68) \end{gathered}$ | $\begin{gathered} 1877.66 * * * \\ (97.84) \end{gathered}$ | $\begin{gathered} 0.22 * * * \\ (0.01) \end{gathered}$ |
| Fireplace | $\begin{gathered} 1050.3^{* * *} \\ (145.83) \end{gathered}$ | $\begin{gathered} 1000.5^{* * *} \\ (131.17) \end{gathered}$ | $\begin{gathered} 968.71 * * * \\ (144.52) \end{gathered}$ | $\begin{gathered} 0.12 * * * \\ (0.02) \end{gathered}$ |
| Parking | $\begin{gathered} 71.76 \\ (122.60) \end{gathered}$ | $\begin{gathered} 5.26 \\ (104.01) \end{gathered}$ | $\begin{gathered} 53.49 \\ (121.39) \end{gathered}$ | $\begin{gathered} 0.02 \\ (0.02) \end{gathered}$ |
| Balcony | $\begin{gathered} 85.34 \\ (73.77) \end{gathered}$ | $\begin{gathered} 73.71 \\ (73.75) \end{gathered}$ | $\begin{gathered} 6.64 \\ (73.32) \end{gathered}$ | $\begin{gathered} 0.05 * * * \\ (0.01) \end{gathered}$ |
| Adequate units | $\begin{gathered} 35.76 \\ (108.99) \end{gathered}$ | $\begin{gathered} 33.76 \\ (109.06) \end{gathered}$ | $\begin{gathered} 43.22 \\ (107.90) \end{gathered}$ | $\begin{aligned} & 0.008 \\ & (0.02) \end{aligned}$ |
| Lot size (in tens of thousands) | $\begin{gathered} -6.23 \\ (4.0) \end{gathered}$ | $\begin{gathered} -6.23 \\ (4.4) \end{gathered}$ | $\begin{gathered} 6.24 \\ (0.0004) \end{gathered}$ | $\begin{aligned} & -0.00065 \\ & (0.00062) \end{aligned}$ |
| Detached unit | $\begin{gathered} 39.22 \\ (93.69) \end{gathered}$ | $\begin{gathered} 66.84 \\ (93.64) \end{gathered}$ | $\begin{gathered} 26.06 \\ (92.80) \end{gathered}$ | $\begin{gathered} -0.02 \\ (0.01) \end{gathered}$ |
| Built prior to 1930 | $\begin{aligned} & -83.99 \\ & (94.89) \end{aligned}$ | $\begin{aligned} & -71.62 \\ & (94.92) \end{aligned}$ | $\begin{gathered} -108.69 \\ (93.96) \end{gathered}$ | $\begin{gathered} -0.03 * * \\ (0.01) \end{gathered}$ |
| Built between 1930 and 1970 | $\begin{gathered} 583.53 * * * \\ (86.14) \end{gathered}$ | $\begin{gathered} 586.45 * * * \\ (86.22) \end{gathered}$ | $\begin{gathered} 698.38 * * * \\ (85.76) \end{gathered}$ | $\begin{gathered} 0.05 * * * \\ (0.01) \end{gathered}$ |
| Built between 1970 and 1990 | $\begin{gathered} 978.10^{* * *} \\ (139.87) \end{gathered}$ | $\begin{gathered} 996.08 * * * \\ (139.80) \end{gathered}$ | $\begin{gathered} 1058.29^{* * * *} \\ (138.62) \end{gathered}$ | $\begin{gathered} 0.12 * * * \\ (0.02) \end{gathered}$ |
| Central city | $\begin{aligned} & -14.51 \\ & (92.81) \end{aligned}$ | $\begin{gathered} 13.04 \\ (92.34) \end{gathered}$ | $\begin{gathered} -3.42 \\ (91.89) \end{gathered}$ | $\begin{gathered} -0.02 \\ (0.01) \end{gathered}$ |
| Crime | $\begin{gathered} -427.87^{* * *} \\ (80.11) \end{gathered}$ | $\begin{gathered} -435.42 * * * \\ (80.15) \end{gathered}$ | $\begin{gathered} -384.77 * * * \\ (79.39) \end{gathered}$ | $\begin{gathered} -0.06^{* * *} \\ (0.01) \end{gathered}$ |
| Odor | $\begin{gathered} -340.36 * * * \\ (125.31) \end{gathered}$ | $\begin{gathered} -335.77 * * * \\ (125.39) \end{gathered}$ | $\begin{gathered} -316.53 * * \\ (124.08) \end{gathered}$ | $\begin{gathered} -0.06^{* * *} \\ (0.02) \end{gathered}$ |
| Poor quality | $\begin{gathered} -236.31 * * * \\ (70.52) \end{gathered}$ | $\begin{gathered} -236.14 * * * \\ (70.58) \end{gathered}$ | $\begin{gathered} -225.51 * * * \\ (69.83) \end{gathered}$ | $\begin{gathered} -0.04 * * * \\ (0.01) \end{gathered}$ |
| Green space | $\begin{gathered} 204.02 * * * \\ (74.74) \end{gathered}$ | $\begin{gathered} 205.01 * * * \\ (74.81) \end{gathered}$ | $\begin{gathered} 212.93 * * * \\ (74.01) \end{gathered}$ | $\begin{gathered} 0.02^{* *} \\ (0.01) \end{gathered}$ |
| Body of water | $\begin{gathered} 439.97 * * * \\ (102.97) \end{gathered}$ | $\begin{gathered} 450.51 * * * \\ (102.99) \end{gathered}$ | $\begin{gathered} 430.02 * * * \\ (101.95) \end{gathered}$ | $\begin{gathered} 0.06 * * * \\ (0.01) \end{gathered}$ |
| Air conditioning *hot temperature | $\begin{gathered} -763.40 * * * \\ (160.87) \end{gathered}$ |  | $\begin{gathered} -707.71 * * * \\ (159.32) \end{gathered}$ | $\begin{gathered} -0.0002 \\ (0.02) \end{gathered}$ |

Table 2 (Continued).

| Fireplace *cold | -50.31 | -20.25 | -0.02 |
| :--- | :---: | :---: | :---: |
| temperature | $(303.59)$ | $(300.56)$ | $(0.04)$ |
| Parking *cold | -232.01 | -191.20 | -0.04 |
| temperature | $(215.30)$ | $(213.17)$ | $(0.03)$ |
| Rental subsidy |  | $-1643.00^{* * *}$ |  |
|  |  | $(132.84)$ |  |

$\begin{array}{lllll}\text { Adjusted R-squared } & 0.870 & 0.870 & .873 & 0.998\end{array}$ Standard errors are in parentheses. ${ }^{* * *}$, ${ }^{* *}$, * indicate statistical significance at the $0.01,0.05$ and 0.10 levels, respectively. All models include city-time indicator variables.

Table 3.
Sample Means. City-Level Data.
14 Primarily Midwestern Cities in 1999, 2001, 2003.

|  |  | High <br> Property <br> Tax | Low <br> Property <br> Tax |
| :--- | :---: | :---: | :---: |
| Citl Cities | Cities | Cities |  |
| Effective property tax rate | 0.014 | 0.016 | 0.012 |
| Public safety expenditure (millions) | 342 | 443 | 240 |
| Public works expenditure (millions) | 210 | 245 | 175 |
| Cultural \& recreation expenditure (millions) | 52.4 | 40.3 | 64.5 |
| Economic development expenditure (millions) | 59.4 | 62 | 56.5 |
| Population | 715,163 | 888,849 | 541,478 |
| Regulation index | 18.2 | 18.0 | 18.4 |
|  |  |  |  |
| Sample Size | 42 | 21 | 21 |

Note: the table reports the expenditure variables in millions of 2003 dollars; however, we convert the expenditure data to per capita terms for the regression analysis. The expenditure variables are provided by the city governments. The effective tax rate is computed using American Housing Survey data on owner-occupied housing units. High tax and low tax cities are those that lie above and below, respectively, of the average city-level effective tax rate in the sample. The rates for high and low cities range from a high of $2.3 \%$ and to a low of $0.1 \%$.

Table 4.
City-Level Regressions.
14 Primarily Midwestern Cities in 1999, 2001, 2003.

| Variables | (1) ${ }_{\text {Base Model }}$ | (2) <br> Exclude Interaction Terms | (3) <br> Rent <br> Subsidy <br> Control | (4) Log (Rent) |
| :---: | :---: | :---: | :---: | :---: |
| Intercept | $\begin{gathered} 75.23 \\ (1488.87) \end{gathered}$ | $\begin{gathered} 266.74 \\ (1611.84) \end{gathered}$ | $\begin{gathered} 314.60 \\ (1464.62) \end{gathered}$ | $\begin{gathered} 7.91 * * * \\ (0.22) \end{gathered}$ |
| Effective property tax rate | $\begin{aligned} & 121478^{*} \\ & (62360) \end{aligned}$ | $\begin{gathered} 111719^{*} \\ (67528) \end{gathered}$ | $\begin{gathered} 118463^{*} \\ (61341) \end{gathered}$ | $\begin{aligned} & 18.02 * \\ & (9.42) \end{aligned}$ |
| Public safety per capita | $\begin{gathered} 1.55 \\ (2.05) \end{gathered}$ | $\begin{gathered} 1.51 \\ (2.23) \end{gathered}$ | $\begin{gathered} 1.55 \\ (2.02) \end{gathered}$ | $\begin{gathered} 0.00010 \\ (0.00031) \end{gathered}$ |
| Public works per capita | $\begin{gathered} -1.26^{*} \\ (0.75) \end{gathered}$ | $\begin{aligned} & -1.21 \\ & (0.82) \end{aligned}$ | $\begin{gathered} -1.18 \\ (0.74) \end{gathered}$ | $\begin{gathered} -0.00019 \\ (0.00011) \end{gathered}$ |
| Culture and recreation per capita | $\begin{aligned} & 6.47 * \\ & (3.86) \end{aligned}$ | $\begin{gathered} 4.09 \\ (4.18) \end{gathered}$ | $\begin{gathered} 6.30 \\ (3.80) \end{gathered}$ | $\begin{gathered} 0.00092 \\ (0.00058) \end{gathered}$ |
| Economic dev. per capita | $\begin{aligned} & -0.12 \\ & (2.80) \end{aligned}$ | $\begin{gathered} 0.23 \\ (3.04) \end{gathered}$ | $\begin{gathered} -0.33 \\ (2.76) \end{gathered}$ | $\begin{aligned} & 0.000094 \\ & (0.00042) \end{aligned}$ |
| Regulatory status | $\begin{gathered} -1322.03 * * * \\ (475.25) \end{gathered}$ | $\begin{gathered} -1321.02 * * \\ (515.84) \end{gathered}$ | $\begin{gathered} -1328.17 * * * \\ (467.41) \end{gathered}$ | $\begin{gathered} -0.16^{* *} \\ (0.07) \end{gathered}$ |
| Adjusted R-squared | 0.24 | 0.17 | 0.24 | 0.15 |

Standard errors are in parentheses. ${ }^{* * *, * *, * \text { indicates statistical significance at the }}$ $0.01,0.05$ and 0.10 levels, respectively.

AN ACT relative to reducing vehicle registration fees.
SPONSORS: Rep. Ammon, Hills. 40; Rep. Foster, Hills. 5; Rep. Doucette, Rock. 8; Rep. Warden, Hills. 15

COMMITTEE: Transportation

## ANALYSIS

This bill reduces vehicle registration fees.

| Explanation: | Matter added to current law appears in bold italics. |
| :--- | :--- |
|  | Matter removed from current law appears [in brackets and struckthrough.] |
|  | Matter which is either (a) all new or (b) repealed and reenacted appears in regular type. |

# HB 1570-FN - AS INTRODUCED 

22-2583
12/11

## STATE OF NEW HAMPSHIRE

## In the Year of Our Lord Two Thousand Twenty Two

AN ACT relative to reducing vehicle registration fees.
Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Fees for Registration Permits. Amend RSA 261:153, I to read as follows:
I. The treasurer of each city, or such other person as the city government may designate, and the town clerk of each town shall collect fees for such permits as follows: on each vehicle offered for registration a sum equal to [18] 15 mills on each dollar of the maker's list price for a current model year vehicle, [15] 12 mills on each dollar of the maker's list price for the first preceding model year vehicle, [12] 9 mills on each dollar of the maker's list price for the second preceding model year vehicle, [9] $\boldsymbol{6}$ mills on each dollar of the maker's list price for the third preceding model year vehicle, [6] 3 mills on each dollar of the maker's list price for the fourth preceding model year vehicle, and [3] 2 mills on each dollar of the maker's list price for the fifth preceding model year vehicle and any model year prior thereto. In no event, however, shall the fee be less than $\$ 5$. Registration permit fees for construction equipment, as defined in RSA 259:42, shall be governed by RSA 261:64. The director shall make the final determination of any vehicle model year in any case in which a dispute arises. The fee collected hereunder for a vehicle used only in the manner and for the purposes specified in RSA 261:82 and for an agricultural/industrial utility vehicle, as defined in RSA 259:2-a, shall be $\$ 5$; and provided further, that the fee collected hereunder for a farm tractor shall be $\$ 5$. In cases of doubt, the director may investigate for the purpose of determining eligibility for limited purpose registrations.

2 Effective Date. This act shall take effect 60 days after its passage.

## HB 1570-FN- FISCAL NOTE AS INTRODUCED

AN ACT relative to reducing vehicle registration fees.
FISCAL IMPACT: [ X ] State [ ] County [ X ] Local [ ] None

| STATE: | Estimated Increase / (Decrease) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FY 2022 | FY 2023 | FY 2024 | FY 2025 |
| Appropriation | \$0 | \$0 | \$0 | \$0 |
| Revenue | \$0 | \$0 | \$0 | \$0 |
| Expenditures | \$0 | \$66,500 | \$0 | \$0 |
| Funding Source: | [ ]General [ ]Education [ X] Highway [ X]Other Restricted - Cost of Collection and Administration* |  |  |  |

*Pursuant to Part II, article 6-a of the New Hampshire constitution, any costs associated with the collection and administration of Highway Funds by the Department of Safety shall be deducted by the Department before such funds are credited to the Highway Fund as unrestricted revenue.

LOCAL:

| Revenue | $\$ 0$ | Indeterminable, <br> Yet Significant, <br> Decrease | Indeterminable, <br> Yet Significant, <br> Decrease | Indeterminable, <br> Yet Significant, <br> Decrease |
| :--- | ---: | :---: | :---: | :---: |
| Expenditures | $\$ 0$ | Indeterminable | $\$ 0$ | $\$ 0$ |

## METHODOLOGY:

This bill reduces the mill rates in RSA 261:153, I, relative to municipal vehicle registration fees. State vehicle registration fees will not be affected. At this time, municipal registration data is not available to precisely estimate this bill's impact on local revenue. For illustrative purposes, the New Hampshire Municipal Association states in 2019 (according to the New Hampshire Public Finance Consortium) approximately $\$ 289$ million was collected in vehicle registration fees. It is indeterminable how much this bill will reduce local revenue by in FY 2023 and each year thereafter.

To implement the changes in this bill into its registration system (MAAP), the Department of Safety expects to incur programming and testing costs of approximately \$66,500 in FY 2023. Additionally, there may be an indeterminable increase in costs for municipalities to make necessary updates to their software systems to reflect this bill's changes.

## AGENCIES CONTACTED:

Department of Safety and New Hampshire Municipal Association


[^0]:    NEW HAMPSHIRE RENTAL COST SURVEY

    Thinking ahead to 2022.

    ANNUAL Our annual Residential Rental Cost Survey gets underway every January. All information provided by property owners is aggregated and kept confidential. If you own or manage one or more units of rental housing, please contact us and take the survey. Because we appreciate that it takes time to complete, after you have completed the survey online or via phone, you may elect to be entered into a drawing to win gift cards. To participate, please contact Kathleen Moran, Housing Research Analyst, at kmoran@nhhfa.org.

[^1]:    * Calculations based on smaller sample sizes are viewed as providing highly volatile results and are not typically released.

[^2]:    Includes Barrington, Brentwood, Dover, Durham, East Kingston, Epping, Exeter, Farmington, Greenland, Hampton, Hampton Falls, Kensington, Lee, Madbury, Middleton, Milton, New Castle, New Durham, Newfields, Newington, Newmarket, North Hampton, Portsmouth, Rochester, Rollinsford, Rye, Somersworth, Strafford, Stratham

[^3]:    **** Calculations based on smaller sample sizes are viewed as providing inconstant and highly volatile results and are not typically released.

[^4]:    Tsoodle: Coordinator, State of Kansas Land Use-Value Project. Turner: Department of Economics, Kansas State University. We thank Allen Featherstone, John Crespi, Bryan Schurle, Dong Li, and session participants at the American Real Estate and Urban Economics May 2005 conference for valuable feedback. We thank Matt Gardner for a helpful discussion, Jack Goodman for generously calculating some statistics for us, and two anonymous reviewers for helpful comments. We especially thank Editor Coulson for his insights and guidance. Tsoodle gratefully acknowledges funding from the U.S. Department of Housing and Urban Development Early Doctoral Research Program.

[^5]:    ${ }^{1}$ See Sheffin (1996) for a presentation of this model. De Leeuw and Ozanne (1981) apply a static version of this model to examine the impact of inflation and federal tax reform on long-run equilibrium rents in the housing market.
    ${ }^{2}$ Willingness to pay, $P$, is computed as: $P=R_{0}+\frac{R_{1}}{(1+r)}+\frac{R_{2}}{(1+r)^{2}}+\ldots+\frac{R_{25}}{(1+r)^{25}}$. Assuming a discount rate, $r$, of $10 \%$ and housing services, $R$, valued at $\$ 12,000$ per year for 25 years thus gives a willingness to pay of $\$ 108,924$.
    ${ }^{3}$ In a dynamic context, house prices would not increase by the full amount of the reduced tax liability, since the market takes into account the expected decrease in house prices resulting from the transition to the new equilibrium.

[^6]:    ${ }^{4}$ Dipasquale (1999) evaluates the evidence and concludes that both single-family housing starts and new multifamily construction are price elastic.

[^7]:    ${ }^{5}$ Specifically, the sample includes rental units in 12 Midwestern cities: Chicago, Cincinnati, Cleveland, Columbus, Detroit, Grand Rapids, Indianapolis, Kansas City, Milwaukee, Minneapolis-Saint Paul, Omaha, and Saint Louis. All units are surveyed in the national survey in 1999, 2001 and 2003. Additional units in Cincinnati and Minneapolis come from the metropolitan survey in 1998; additional units in Columbus, Kansas City, and Milwaukee come from the metropolitan survey in 2002. We also include units in Denver and Oklahoma City in 1999, 2001 and 2003 from the AHS national sample to boost sample size, for a total of 14 cities.

[^8]:    ${ }^{6}$ Sexton (2003) and Baer (2003) provide excellent summaries of the property tax relief programs available in each state.

[^9]:    ${ }^{7}$ Recent work by Goodman (2006) using newly available data from the 2001 Residential Finance Survey suggests that effective property tax rates vary by property type (owner-occupied, single family units versus multiplexes) and property value (low, medium and high). Although a clear pattern does not emerge, Goodman finds that the effective tax rate on apartments differs from that on houses for both low and high valued properties. The tax rates on medium valued properties are similar, however, across property type, controlling for other factors.
    ${ }^{8}$ The authors gratefully acknowledge the individuals in these 14 cities who helped us obtain the 1999 data.

[^10]:    ${ }^{9}$ The one-stage, household-level, hedonic rent equation with the city-level controls added in, results in correlated error terms within the city/year groupings of renters and therefore standard errors that are downward biased (Moulton, 1986). We implement the Moulton correction to provide correct standard errors.

[^11]:    ${ }^{10}$ Approximately 3000 multiplex rental units are missing square footage data. For these observations, we impute the missing square footage data by using the data reported on the approximately 3,500 multiplex units for which we have square footage data. The details of our approach are provided in the appendix.
    ${ }^{11}$ Specifically, the surveyor is provided with a list of unit deficiencies, and the presence of any one deficiency would lead the surveyor to classify the unit as inadequate. For example, a unit is deemed inadequate if the unit lacks complete plumbing facilities, has no electricity, has exposed electrical wiring, or lacks complete kitchen facilities.

[^12]:    ${ }^{12}$ The Malpezzi index is constructed to capture the extent to which metropolitan and state-level regulations constrict local housing supply. See Malpezzi (1996) for a careful description of the index.

[^13]:    ${ }^{13}$ The city-time coefficient estimates are not reported here, but are available from the authors upon request.

[^14]:    ${ }^{14}$ In the linear models, we compute the marginal effect of a one-standard deviation increase in the property tax rate by multiplying the coefficient estimate by one standard deviation or 0.0034 . For the log models, we multiple the coefficients by 0.0034 and the average sample rent of $\$ 7,347$.

[^15]:    ${ }^{15}$ For example, the two most densely populated counties in Kansas, Johnson County and Sedgwick County, have $45 \%$ and $74 \%$ of the land zoned for agricultural use, respectively.

