



Department of Local Government Finance

Ratio Study Submission and Review Process

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Sr. Statistician
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Overview

- Formatting for Ratio Study spreadsheets.
 - Formatted Tab
 - Workbook
- What files to submit.
- Sales reconciliation.
- Narrative Template.
- How to submit your ratio study.
- What happens during the review process.
- How to get a timely approval.



New This Year

- New this year
 - Column header requirement.
 - No MultiParcelSales tab.
 - Primary column on Formatted tab.
 - Groupings cannot have overlapping study sections.
 - File naming conventions.
 - AV changes (greater than 10%) must be included in Narrative.
 - TEAMS!



New This Year

- NOTE: AV changes are based on the prior year AV with the prior year property class and the current year AV with the current year property class.



Formatting

- R software not as picky as previously used software, but some formatting still necessary.
- Formatted tab must be named “Formatted”.
- Workbook tab must be named “Workbook”.
- Two cyclical columns: 2018 Cyclical Reassessment and 2019 Cyclical reassessment. If future years included, all cells must contain “N” only.
- Column names must be same as example.



Formatting

Workbook Column Names	Example
Parcel Number	12-34-56-789-123.456-789
Township Number	three-digit number
Township Name	Jackson Township
Neighborhood Code	12345
Prior Year Property Class	500
Current Year Property Class	510
Taxing District	three-digit number
Prior Year Land AV	2000
Prior Year Improvement AV	0
Prior Year Total AV	2000
Current Year Land AV	2500
Current Year Improvement AV	95000
Current Year Total AV	97500
2018 Cyclical Reassessment	Y/N
2019 Cyclical Reassessment	Y/N

Ratio Study Column Names	Example
SDFID	C01-2019-9876543
Parcel Number	12-34-56-789-123.456-789
MultiParcel	Y/N
Primary	Y/N
Study Section	ResImp
Grouping	must be unique for each study section; use "None" when township/study section does not have different groupings
Township Name	Jackson Township
Neighborhood	12345
Property Class	510
Taxing District	three-digit number
Sale Date	MM/DD/YY
Study Sale Price	100000
Current Land AV	2500
Current Improvement AV	95000
Current Total AV	97500



Formatting

- R software will sum all parcels with same SDFID; MPS tab no longer needed.
- Files must be named “County Name Ratio Study” and “County Name Workbook.”
- Grouping must be unique for each study section. Grouping “A” cannot contain both ResImp and ResVac. Use “None” if there are no special groupings.



Teams

- Beginning with the 2020 Ratio Study review process, all file sharing and communication will be conducted through Microsoft Teams.



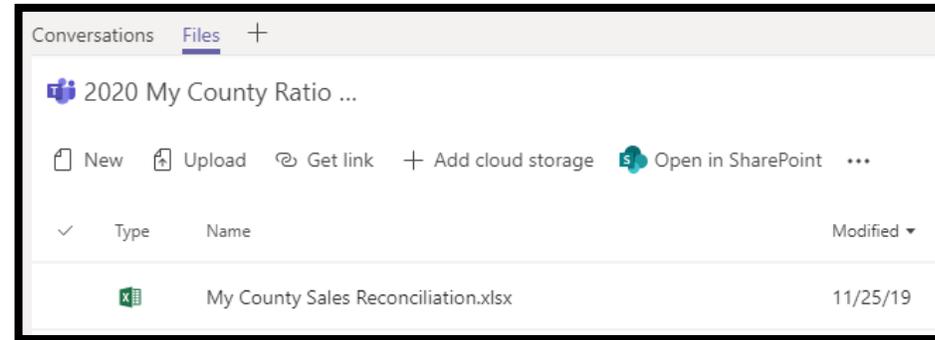


Sales Reconciliation

- After a county has received compliance status, the Department will generate your Sales Reconciliation (potentially valid sales) from the sales files.
- This may take a few days.
- This is not a comprehensive list of all sales that will be in your Ratio Study, nor is it a requirement to include all of these sales.
- This as a courtesy to speed up the Ratio Study review process.



Sales Reconciliation



- When the file is generated the Department will upload it to your Team and notify you in Teams.
- Notify the Department in Teams that you have received the file ('like', @mention, etc).
- The sales on this list that are not included in the Ratio Study will require an explanation.



Submission Files

- All of the following files must be submitted and formatted correctly to be considered a compliant submission.
 - Narrative (use required template)
 - Ratio Study
 - Workbook (must be a separate file)
 - Sales Reconciliation (with explanations)



Narrative Template

- Sales window and time adjustment.
- Explain groupings.
- AV increase/decrease $\geq 10\%$
 - AV change = Prior year value for prior property class compared with current year value for current property class.
- Cyclical reassessment review
 - Was there a land order?
- Other



How to Submit Files

- Counties and vendors will be added to Teams as guests.
- Other than assessors, guests will not be added without the express consent of the county.
- Guests will receive an invitation to join the team via email from Microsoft.
- Follow the prompts in the email to accept this invitation.



Login Info

You have been added as a guest to State of Indiana in Microsoft Teams



Microsoft Teams <noreply@gcc-email.teams.microsoft.com>



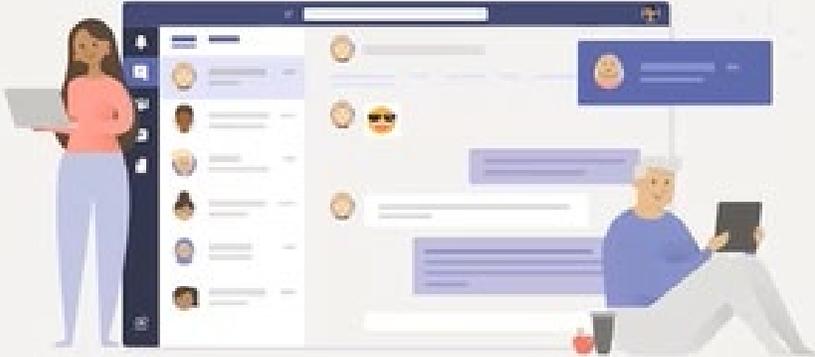
8/23/2019 4:34 AM

To: v.williams@live.com

A screenshot of a Microsoft Teams notification card. The card has a light blue background and contains the following text: "Microsoft Teams" at the top, followed by "Vanessa added you as a guest to State of Indiana!". Below this is a white box containing a green square with the letters "DM", the text "DLGF My County Ratio Study", and "For testing purposes only." At the bottom of the card is a blue button with the text "Open Microsoft Teams". Two red arrows point towards the button from the left and right sides, and the button itself is outlined in red.



Login Info



Experience the best of Teams meetings with the desktop app

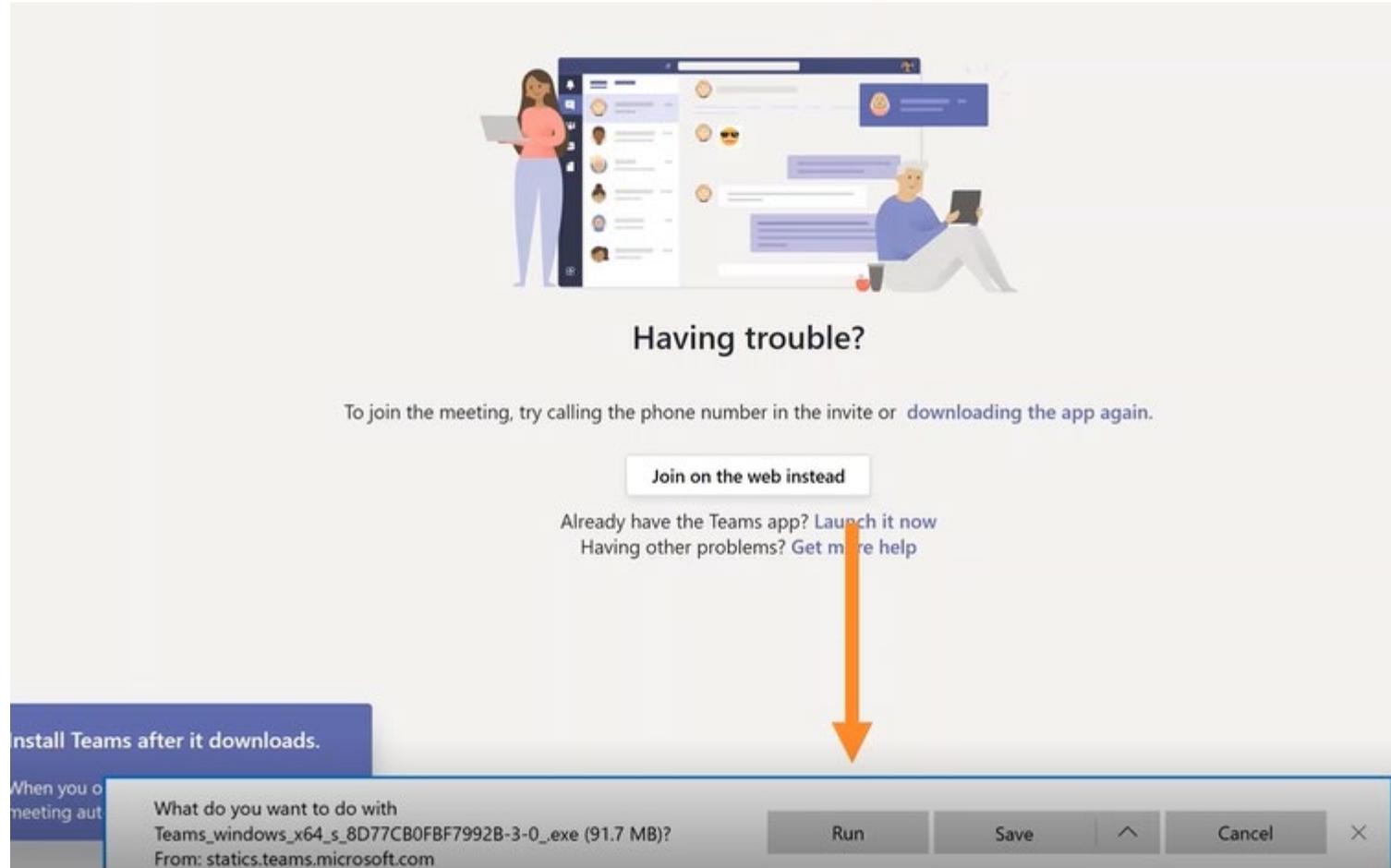
[Download the Windows app](#) [Join on the web instead](#)

Already have the Teams app? [Launch it now](#)

The complex block contains an illustration of a Teams meeting interface with two participants. Below the illustration is a promotional banner for the desktop app. The banner features the text "Experience the best of Teams meetings with the desktop app" and two buttons: "Download the Windows app" and "Join on the web instead". The "Download the Windows app" button is highlighted with a red border and a red arrow pointing to it from the left. Below the buttons is the text "Already have the Teams app? Launch it now" with a link.



Login Info

A screenshot of a Microsoft Teams troubleshooting interface. At the top, there is an illustration of a woman standing and a man sitting on the floor, both looking at a large screen displaying a Teams chat interface. Below the illustration, the text "Having trouble?" is centered. Underneath, a line of text reads: "To join the meeting, try calling the phone number in the invite or downloading the app again." A button labeled "Join on the web instead" is centered below this text. Further down, there are two lines of text: "Already have the Teams app? Launch it now" and "Having other problems? Get more help". A large orange arrow points downwards from the "Join on the web instead" button towards a Windows file explorer dialog box at the bottom of the screen. The dialog box shows a file named "Teams_windows_x64_s_8D77CB0FBF7992B-3-0_exe (91.7 MB)" with the source "From: statics.teams.microsoft.com". The dialog has buttons for "Run", "Save", and "Cancel".



Login Info

- Sign in using your work account or Microsoft account.



**Enter your work, school,
or Microsoft account.**

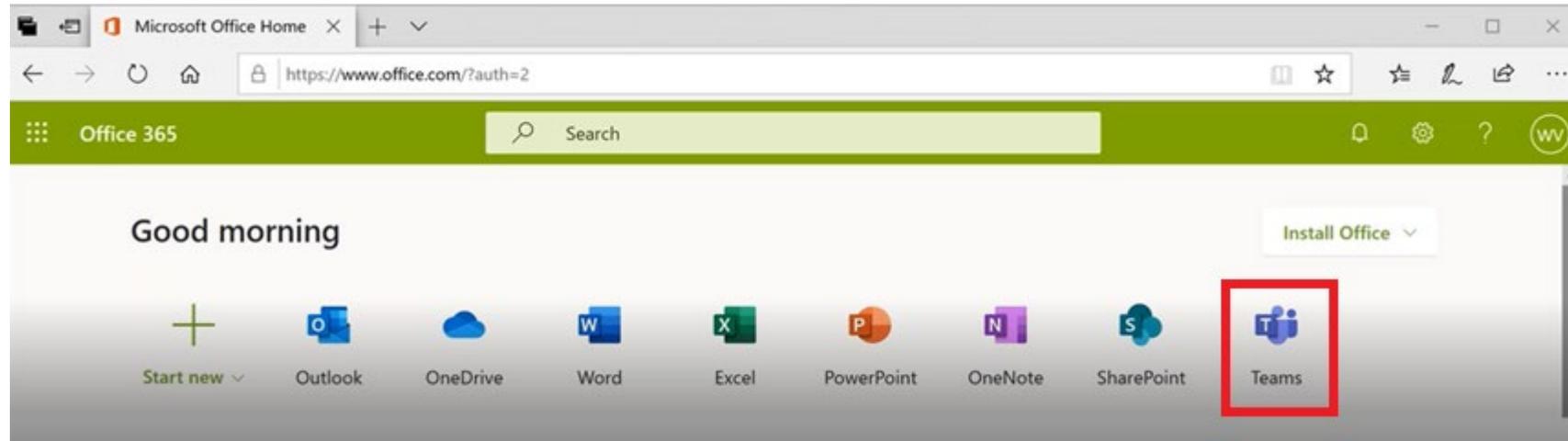
Sign-in address

Sign in



Login Info

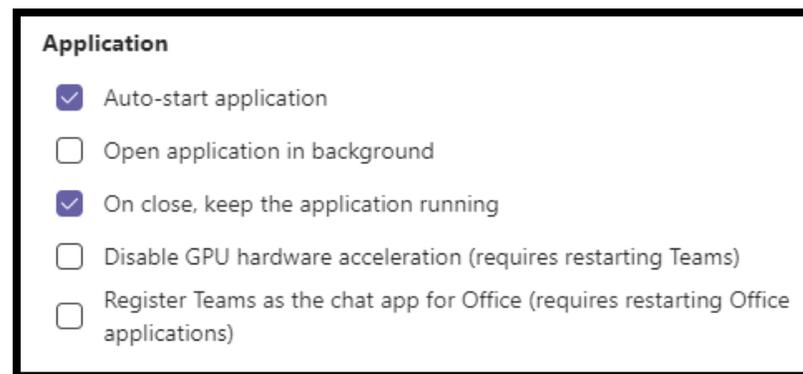
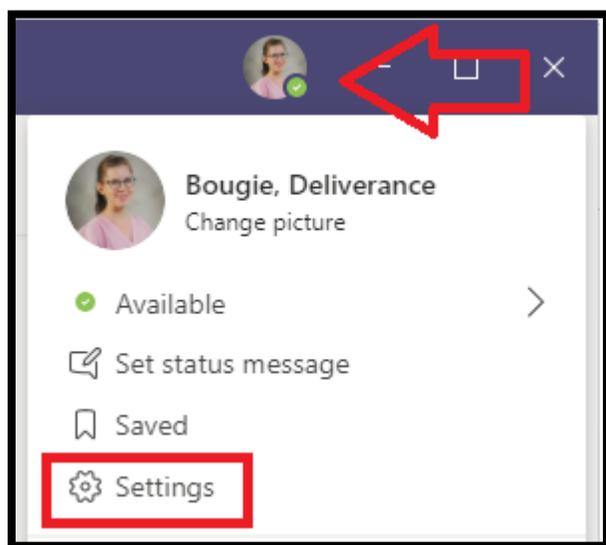
- To access the web app go to www.office.com.





How to Submit Files

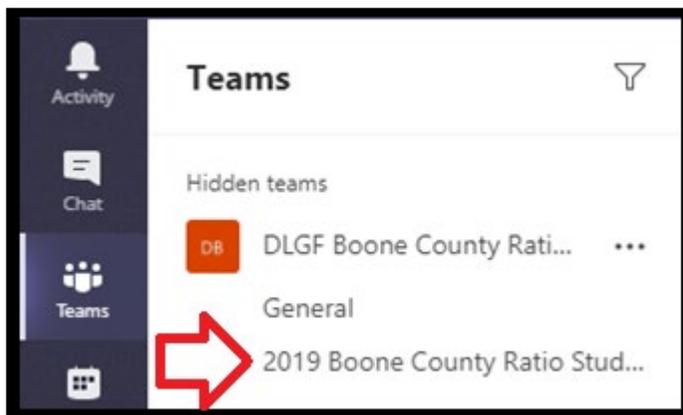
- During the Ratio Study season, always keep Teams open to get notifications immediately.
- Pro tip: Set Teams up to auto-start. Teams will open when you start your computer.





How to Submit Files

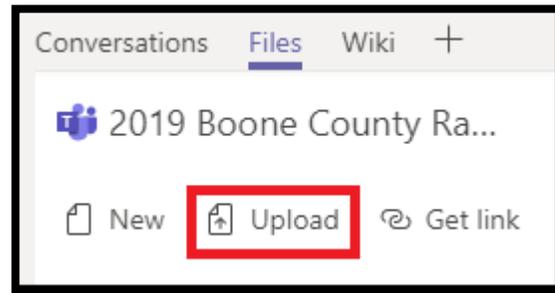
- To submit your Ratio Study files, locate and click on the 2019 channel in your Team.
- At the top of the screen you will see tabs named Conversation, Files, etc. Click on Files.





How to Submit Files

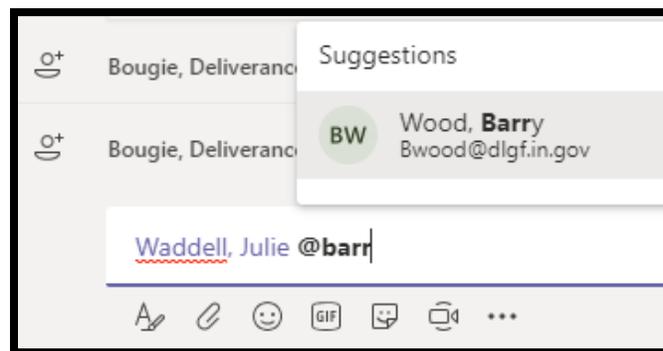
- Below these tabs you will find an “Upload” button. Select that and navigate to the appropriate files.
- When you select your files and click “Open” they will upload to this channel.
- Repeat these steps for all files if uploading individually.





How to Submit Files

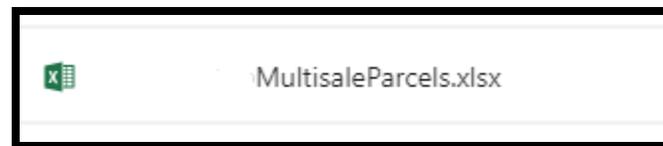
- Notify Department by tagging @Barry Wood, @Deliverance Bougie, and @Julie Waddell in the conversations tab.
- If you do not @mention us, the Department staff will not know of your submission.
- The Department will acknowledge receipt of your Ratio Study.





Duplicates

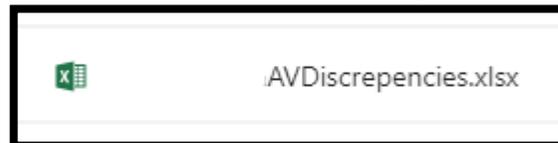
- Before the review begins, the Department will check for duplicates in the Ratio Study (SDFID) and Workbook (parcel #).
- If there are duplicates in either of the files, the Department will upload a spreadsheet with these duplicates and ask for explanation or removal from the files in Teams.





Discrepancies

- Before the review process begins and after duplicates are removed, the Department will check for discrepancies in AVs between the Workbook and Ratio Study.
- If there are any discrepancies for which staff cannot determine the reason, the Department will upload a file containing these duplicates and you will be asked to either make necessary corrections or give an explanation.





Assignment

- The Ratio Study submission is deemed compliant once all files are submitted, all formatting is correct, there are no duplicates, and there are no discrepancies.
- At this time all statistics will be run and AV files will be generated. Your Ratio Study will then be assigned to a field rep for review.



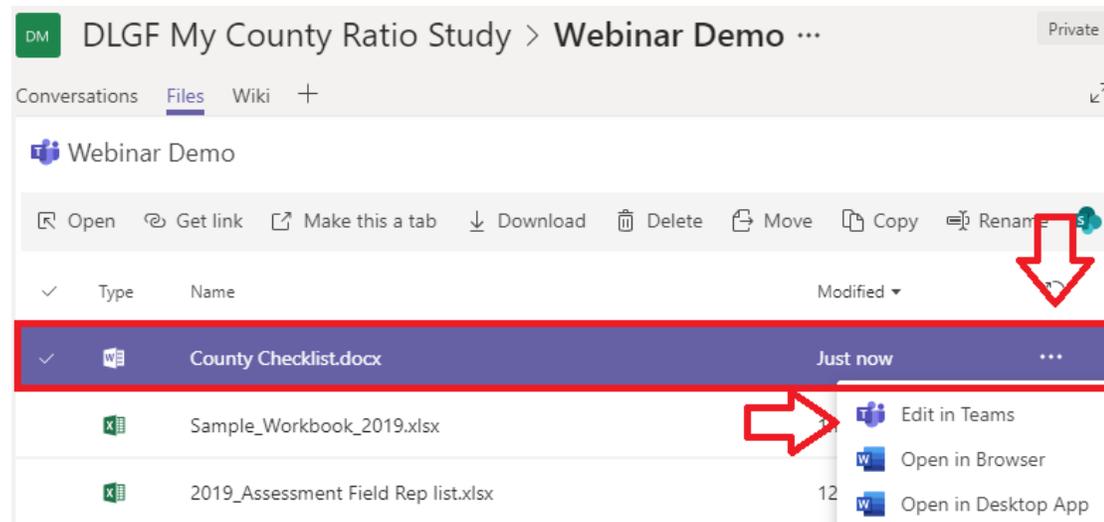
Review Process

- Checklist
 - Once the assigned field representative has reviewed your files, they will upload a checklist with additional questions they have about items such as groupings, AV changes >10%, out-of-tolerance statistics, and cyclical reassessment.
 - Median: 0.90-1.10; COD: 5-15% ResImp or 5-20% other; PRD 0.98-1.03



Review Process

- Answer these questions within the file that was uploaded in Teams.





Review Process

Search or type a command

County Checklist.docx Start conversation Close

Word County Checklist - Saved Simplified Ribbon Bougie, Deliverance

File Home Insert Layout References Review View Help Open in Desktop App Tell me what you want to do Comments

Times New Ro... 12 A⁺ A⁻ B I U

2020 Annual Sales Ratio Study Checklist

COUNTY: My County

Pursuant to 50 IAC 27-5 we have made an initial review of your study. Our review indicates the study is missing the following information:

Note: All ratio studies are being reviewed in RStudio using the "Formatted" tab, not the individual ratio study tab by township.

Issue #1: Based on the attached "COUNTY AV Comp Detail 03-26-2020.pdf" file please provide explanations for the townships by major class, why the AV from last year increased or decreased by more than 10%. The AV explanations explained on the narrative have not been included here.

Commercial Improved

Washington	21.3%
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County Response:

Here is my county response



Review Process

- After all checklist questions have been answered, the Ratio Study will go through a second review. Once the second reviewer has completed their review and all AVs are considered final, two statistical tests will be run.



Statistical Tests

- Spearman Rank
 - Test for vertical equity.
 - Groupings of 5-20 sales.
 - Trend of ratios across AVs.
 - Vertical inequity will need to be corrected.
 - Make corrections to the Ratio Study file submitted in Teams.



Statistical Tests

- Mann-Whitney
 - Test for equal appraisal between sold and unsold properties.
 - Most recent cyclical phase not included.
 - 95% must pass ($p=.05$)
 - NBHDS with diff $>3\%$ will be reviewed for questioning.
 - Explain parcel changes in spreadsheet uploaded to Teams.
 - Include SOP for effective age changes with narrative to speed this process.



Things That Cause Delays

- Incorrect formatting
- Insufficient explanation on reconciliation
- Narrative does not explain AV changes
- Delayed response to messages
- No grouping explanations



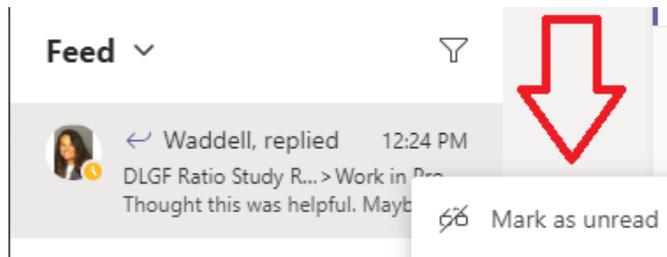
How to Get a Timely Approval

- Get acquainted with Teams.
- Submit all files.
- Format all files correctly.
- Include all necessary information in Narrative.
- Include Standard Operating Procedure for effective age changes in Narrative.
- Keep Teams open during process.
- Review notifications immediately.



How to Get a Timely Approval

- Mark activity as unread if unable to respond immediately.



- “Like” posts you have reviewed.
- @mention the individual with whom you are communicating.
- Learn to make changes within uploaded files before the Ratio Study begins.



Contact Info

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