

# APPRAISAL TODAY

## UAD 3.6 Update - Software Vendors, Both Old and New and More Info

In my July 2025 issue I wrote this article "From UAD 2.6 to 3.6", what appraisal software vendors are doing. I had live demos for Bradford, SFREP and alamode. Only SFREP had a demo of the report software. Alamode had a demo on their inspection app. Bradford demo was their software before going into the field. ACI was not included as I could not schedule it by my deadline.

I include some excerpts from that long article in this update article. The article is available at no charge on the Paid Subscriber web page.

In the past 3 months the vendors have been working on GSE verification of their software by the GSEs, and add-ons to their report software. Also working on inspection apps. Most are using software from other companies, such as Appraiser Genie and Spark.

In October, none of the software vendors were ready to use software for completing appraisals. All are focusing on the Broad Production start date of January 26, 2026, but I don't know who will complete the software by that date.

Recently appraiser Andy Arledge developed UAD 3.6 software. He previously developed Appraiser Genie Software (Genie Cloud does adjustment support, Cost Approach and more) He now has Freedom Appraise software for UAD 3.6, similar to the other companies above.

There are at least 3 new software companies with Venture Capital funding. They appear to use much more AI now. They appear to be started by young people. I will be getting live demos on these software companies. They are, Automax AI at [www.automax.ai/](http://www.automax.ai/), and Aivre at [aivre.com](http://aivre.com) and EZTypes [www.eztypes.com](http://www.eztypes.com) (website has little information so far).

I will be writing about them in future issues.

Whether or not these 3 new software companies make it is uncertain. The total appraiser market is relatively small.

Appraisal forms software started in the mid-80s. This is the first change in residential lender appraisal reports in 40 years.

### How to watch demos of 7 UAD 3.6 software providers.

I recently watched videos of 7 of the software providers in a recorded "Open Mic with appraisal software providers" by Walitt Solutions. It was excellent! To purchase the recording go to [www.walitt.com](http://www.walitt.com) and click on the button at the top of the page that says "Jump to Appraisal Software Demos".

Then click on access series and register to pay \$49.00. Once that is set up, go to the videos for the UAD 3.6 software vendors you want to watch.

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None of the vendors are "ready to go" now, but you can get an idea of what their software looks like.

Included are these 6 vendors:

" Matt Johnson Takes the Open Mic to Share the New \*Appraise-It Pro\*

" Humza Ahmed Takes the Open Mic to Dive Into "Automax AI"

" Andy Arledge Takes the Open Mic and Explores \*Freedom Appraise\*

" Jake Lew Takes the Open Mic for to Showcase "Aivre Analytics"

" Jeff Bradford Grabs the Open Mic to Discuss \*NightHawk\*

" Back for More: Aivre's Dynamic Duo Lights Up Tech Talk Take 2

" Sam Nash of EZTypes Takes the Open Mic to Explore "EZ"

### **Three Major Factors to be completed before the software is usable.**

1. UAD 3.6 software - "PDF Report"
2. From software vendor - introductory pages to help you fill out parts of PDF report, such as address, client name, etc. Size varies widely. Bradford is the longest and includes comp choices, graphs, different valuation methods, etc. and concludes with values for regression, etc.
3. New mobile app. In my opinion, this is mandatory for any appraiser wanting to do UAD 3.6 reports.

### **Names for the UAD 3.6 software - somewhat confusing.**

SFREP (SFREP Appraise-It Pro) and alamode (Total) - the same name as their existing form software, as they are "updating" their software. Bradford - a new name: Nighthawk.

### **Which software vendor should you use and when decide?**

Wait to decide until mid to late 2026, when vendors will have the UAD 3.6 software, plus added software for graphs, MLS, public records, etc.

For now, you can look at the recorded demos at the top of this article. I will be doing live demos later, when the software is closer to completion.

I will let you know when it is a good time to decide.

### **What about AMCs and fees THE TOP QUESTION?**

Everyone is worried about AMC fees of \$350. No one knows what will happen.

### **What if you don't want to do UAD 3.6?**

Consider non-lender appraisals. No GSEs, No AMCs, No annoying questions, reviews, etc. Instead of spending time learning how to do UAD 3.6, make money doing non-lender appraisals. I have been writing about this since I started this newsletter 33 years ago. I have been doing non-lender appraisals since I started my business in 1985.

### **Why did the GSEs go to UAD 3.6?**

The GSEs wanted more and better structured data for their analytical software. They also want structural data capture and eliminating inconsistency in appraisals.

In UAD 2.6 (the forms software you are using now), the GSEs started using codes/abbreviations which helped.

They also wanted "dynamic" reports that only include what is relevant to the appraisal. For example, if the Cost Approach is not used it does not appear in the report. The forms reports you use now are fixed - every report looks the same.

Many appraisals had long addendums. GSEs could not obtain data from it. You are limited in the file sizes and the only formats you can use are: PDF, JPG, and XML.

In UAD 3.6, text fields are located next to the topic.

### **What about non-lender appraisals?**

GSEs say their reports are not for non-lender use. SFREP and alamode are updating their current software so it will be easy to include non-lender software.

Bradford is cloud based so it would be more difficult. They will be adding them later to the cloud. You can always keep using their current forms software.

SFREP and alamode software is based on their current forms software. The non-lender forms and other forms will be available.

### **What about my long addendums and long text comments that don't fit into the space allowed?**

There are limits on files - only JPEG, PDF and XML files are allowed in the part of the software for extra information. PDFs converted to JPG do not work out. JPEGs not set up for PDFs.

Your 30-40 page current addendum pages in PDF probably won't work. You could take some of the information and put them into small files to be imported into your UAD 3.6 appraisal report.

### **What about work files?**

Some vendors said they have a separate folder for including all your data appropriate for a work file. Hopefully they all will have this, or something similar.

You MUST keep a workfile, so you can respond to questions from your state regulator and attorneys defending you in a lawsuit.

### **What about graphs, data analysis, etc?**

This will be in separate software provided by other companies integrated into the UAD 2.6 software. For example Spark, Datamaster, Profit AI, True Footage, etc.

### Who is using AI now?

Current software vendors are "looking into or testing" AI. The new vendors (see Walitt Solutions above) are including AI features such as dictating comments. I will write about them in future articles.

### Who decides what is in the UAD 3.6 report software?

GSEs gave specifications to the software vendors in 2023. Their software must be verified by the GSEs.

The GSEs spent 5 years working on their specifications. That is why every vendor's appraisal reports look almost identical.

GSEs will be doing regular updates as more appraisers use the software and have questions.

GSEs review every software vendor's software before approving it (verification).

In my review of the report software in a previous article, I had many questions about specific data that is required.

"What is Broadband?" is a popular question.

Fortunately, adding and deleting specific data is relatively easy for the vendors, after the GSEs decide.

All the vendors will have additional supplemental software, such as inspection apps. The GSEs do not have any specifications on this software.

One new software vendor, Andy Arledge (Freedom Appraise), includes his software from his Appraiser Genie software which does adjustments, cost approach, etc.

Bradford's software has a very extensive data section before the appraisal report. After this section is completed (comp selection, many graphs from data imported, etc.) it takes about 10 seconds to do complete the report automatically.

### Which forms you use today will be in the new UAD 3.6 software?

The new UAD 3.6 replaces all the numbered GSE forms in use today: 1004 / 70 (traditional, desktop, and hybrid)

1073 / 465 (traditional, desktop, and hybrid)

1075 / 466

2055 / 2055

1004C / 70B

1025 / 72

1007 / 1000

2090

2095

The 1004D /442 is replaced by two new report types, the Restricted Appraisal Update Report and Completion Report

Both UAD 2.6 and 3.6 will be needed until November 3, 2026 when UAD 3.6 is mandated.

When you start filling out the new report, for example, if you click attached, it will ask more questions to find out if it is a condo, duplex, etc. and will show on the screen what is appropriate for the subject.

### Difference between UAD 2.6 and UAD 3.6 Appraisal Reports

UAD 2.6 has 9 different static form reports (see above.)

UAD 3.6 One dynamic report (sometimes called "PDF Report") including only the 11 listed above

### Verification before approval of software

UAD 2.6 not required - used for decades.

UAD 3.6 - verification by GSEs required

### Data, text, graphs, etc. importing into reports

Both have additional sources of data that can be imported into the report, from the software vendor and companies such as Spark, Datamaster etc.

UAD 2.6 not required - used for decades.

UAD 3.6 - requires that data imported be formatted correctly. (XML) per GSE verification.

### Large 20-30 page addendum

UAD 2.6 - allowed in report

UAD 3.6 - Not allowed. File sizes too large.

### Using mobile inspection app

UAD 2.6 - Currently some appraisers use them but many do not, which requires manual entry into form.

UAD 3.6 - No Manual Entry is recommended. Too much data, photos, etc.

*NOTE: none of the software vendors have completed their software except alamode. When any are available I will have a live demo and will write about it.*

### What about using appraisal UAD 2.6 information from the same subject property in UAD 3.6?

Only 6% of the UAD 2.6 data is the same as UAD 3.6. Maybe you can set up a separate word or excel file to copy and paste neighborhood description, etc. Some UAD 2.6 software vendors have "quick picks" or some other name, that you can use for comments.

**The status today of software vendors compared with July, 2025, my previous article**

Per Jeff Bradford, "No changes from our side. We are still working toward getting approved and allowing appraisers to test out the software." Two Bradford comments below.

"Since no software vendor has completed the verification process, there is literally nothing new to report. No one is able to produce a UDAD 3.6 appraisal yet. Once there is some production, there will be plenty to write about, since each vendor's software is implementing the solution differently. "

"It's the 80/20 rule. It takes 20 percent of the time to compete 80% of the product. But it takes 80% of time to finish the last 20%. That is what we are all facing."

The GSEs schedule said broad production from January 26 to November 1, 2026.

Vendors are not sure when they will be ready.

**UAD 2.6 (current forms) and 3.6**

Both UAD 2.6 and 3.6 are okay until the Mandate of 3.6 on November 2, 2026. Until then, UAD 2.6 or UAD 3.6 can be used. See the calendar below.

The UAD 3.6 software is set up to handle both. When you set up an appraisal you select which format your lender/AMC client requests.

**UAD 2.6 (forms) vs. 3.6 (Reports)**

UAD 2.6 is the forms software you are using now. It started in 2010 and 2011 when the forms were last updated.

The weird abbreviations in the Sales Comparison Grid, for example, were not popular. It was very difficult for borrowers and others trying to read the reports. Checking a list to see what they meant was very inconvenient.

GSEs needed a way to get more data from appraisals. Eliminating special codes/abbreviations made it much easier.

UAD 3.6 has greatly expanded the data that can be used and the number of data fields. Some of the fields don't relate much to doing appraisals. The GSEs want the extra data. If you want to do GSE appraisals you will have to use UAD 3.6.



UNIFORM MORTGAGE DATA PROGRAM



Fannie Mae



2024		2025		2026		2027
UAD 3.6 TESTING		Uniform Appraisal Dataset (UAD) 3.6 PRODUCTION				
INDUSTRY PREP		LIMITED PRODUCTION	BROAD PRODUCTION		MANDATE	RETIREMENT
		September 8, 2025 – January 25, 2026	January 26, 2026 – November 1, 2026		November 2, 2026	May 3, 2027
		UAD 2.6 -> UAD 3.6 Transition Period			UAD 2.6 Pipeline Revisions	
Submit 2.6 Only	Submit 2.6 Only	Submit 2.6 and Limited Production Participants* to Submit 3.6		Submit 2.6 or Submit 3.6	Submit 3.6 Only	2.6 Pipeline Cleared
November 18, 2024 – Redesignated Uniform Residential Appraisal Report (URAR) industry training available on GSE websites	June 4, 2025 – GSEs publish policy updates  July 28, 2025 – ULDD Mandate: Lenders must deliver ULDD Phase 5 data points prior to using UAD 3.6	September 8, 2025 – Fannie Mae and Freddie Mac can accept both UAD 2.6 and 3.6  *Limited Production Participants - Lenders who have submitted the UAD Questionnaire and received GSE approval will have controlled access to submit 3.6 to Uniform Collateral Data Portal (UCDP)		January 26, 2026 – All Lenders may begin submitting to the GSEs' production environment without prior GSE approval	November 2, 2026 – Lenders must use UAD 3.6 for all new submissions on or after this date  Revisions allowed for previously submitted UAD 2.6 appraisals	May 3, 2027 – UAD 2.6 Pipeline revisions period ends

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### **Timeline of the Road to UAD 3.6**

GSE timeline for Software Vendors completing their UAD 3.6 software and getting verifications of all scenarios by GSEs:

- 2009 - GSEs interviews software vendors about what stakeholders think about UAD 3.6 at individual meetings. One software vendor said: "This is a mistake!".
- 2017 - GSEs say that in the future appraisers should work on desktops. Appraisal modernization. They used PDCs and Hybrids.
- 2018-2023 GSEs develop software specifications: took 5 years
- 2023 GSEs release specifications to vendors
- 2024 - Industry Prep. UAD 2.6 only.
- September 8, 2025 software available for Limited Production for lenders. Rocket mortgage is approved now, plus some additional mortgage companies.
- The final deadline is November 2, 2026.

### **Can you use an old template from forms software for UAD 3.6?**

No. UAD 2.6 and 3.6 only have a 6% data overlap.

### **Why has it taken so long for the software vendors to complete their software?**

GSEs have been working on it for a long time. See timeline above.

The software has to include all the existing property types, which makes it very complicated.

In 2023 (only 2 years ago!) the GSEs released specifications to vendors.

Now we know that it was not enough time to get the software completed and verified by GSEs using their deadlines on the previous page.

Plus setting up inspection apps, and integrating add-on software for other features, such as Spark.

For the software vendors using the cloud, such as Bradford, this has meant totally new software.

Alamode and SFREP used their existing software and modified it.

They are all working for free. The GSEs do not reimburse them for their time.

Today, GSE verification of the software takes a while. They are very "picky" about the software and want to be sure that all vendors meet their requirements for the exact same report software.

Also, the GSEs keep changing what they want. For example, one vendor said his software was not accepted because one line was a few pixels thicker than the GSE requirement.

GSEs are making changes to their requirements as software vendors get their verification.

### **What type of tablet to buy?**

All 3 vendors from above said get an iPad Pro with LIDAR. This is needed for doing sketches, such as ScanToSketch and Instaplan. There may be other sketch software providers that don't use LIDAR.

I currently have a 13 inch iPad for personal use, but vendors said it might be too clumsy in the field.

I have LIDAR on my iPhone Pro. It works great for sketches. I will never walk, and encounter who knows what, in rear yards with overgrown landscaping! Note: There is no standard typeset for Lidar, lidar, LIDAR, etc.

### **What types of mobile apps are vendors using?**

Alamode developed their own mobile app. Other vendors will be using existing companies to develop their mobile apps, such as the mobile app they are using now for form appraisals.

### **What if you don't want to use a mobile app?**

One vendor, SFREP will have checklists to use on a clipboard. They are not ready yet.

### **Information on software vendors**

#### **alamode/Cotality Software name: Total [www.alamode.com](http://www.alamode.com)**

This is an upgrade for Total, their current forms software, a name that is familiar to their customers. The name of their mobile app is TOTAL for Mobile. A demo of the report software was not available.

I had a demo of a la mode/Cotality's new mobile app. Very comprehensive. It has reminders if you forgot to do something. When you upload, photos are located with the description so you don't have to search through a long list of photos.

For more info, click on [www.alamode.com](http://www.alamode.com)

#### **Bradford Software Name: NightHawk**

[www.bradfordsoftware.com/nighthawk](http://www.bradfordsoftware.com/nighthawk)

Bradford is very different from the other 3 software vendors. He is a sort of visionary, looking to the future - where appraisal is going.

Jeff Bradford had an unusual approach - Completing UAD 3.6 Report using information and analysis in a "Valuation" section.

I have known him for a long time and seen many of his presentations. His office is 20 miles from mine, so he regularly speaks at local appraisal events.

His approach is "visionary" looking at the past and the future.

Per Jeff, two years ago the GSEs "blew up the world". We had to create dynamic reports.

He looks at the "Appraiser of 2030". Where appraisers will be in the year 2030.

Jeff does not like the old reports with the "form filler" software. He sees his company as an appraisal report publisher:

- No more manual form fillers
- Appraisers are decision makers. The software does the analysis.
- Inspection app feeds data directly into report software.
- Speed is what everyone wants.

Looking at the past, there were 37 appraisal companies in the mid-1980s. There were lots of opportunities.

Today he sees the same pattern with new software companies with younger people doing AI in their software. Venture capitalists see a new market and do some of the funding.

For more information, click on [www.bradfordsoftware.com/nighthawk](http://www.bradfordsoftware.com/nighthawk)

**SFREP - Software Name: Appraise-It Pro [www.sfrep.com](http://www.sfrep.com)**

Per SFREP: "It's built into our current Appraise-It Pro product." Their software uses updating coding from their UAD 2.6 forms software that was done before UAD. It is used for UAD 3.6. I did a live 2 hour demo of filling out the report. I asked a lot of questions.

Appraisers can import data from a variety of sources, including their local MLS and public records, through integrated services like CompLink and Profet.ai.

A new mobile app that supports the UAD 3.6 reports is in development with the goal of launching alongside the new UAD.

In their software you can easily go back and forth from UAD 2.6 (current forms) to UAD 3.6.

For more information go to [www.sfrep.com](http://www.sfrep.com) and click on View Videos. Many UAD 3.6 videos are there, plus other information.

**Many thanks to the software vendor employees that helped me:**

SFREP, Matt Johnson, alamode, Matt Krodel, Bradford Technologies, Jeff Bradford plus several employees who provided input

**Previous articles on UAD 3.6**

Available on the Paid Subscriber Web Page (Most recent Page is [www.appraisaltoday.com/AUGUST](http://www.appraisaltoday.com/AUGUST) New link - changes every other month.

**April 2025** - first article  
New URAR What It Means for Appraisers  
Fannie Q and As and other information available in April.

**May 2025**

Review of Appraiser's Guide to the New URAR Class  
How to use Document F-1 to find what GSEs want in the PDF Report plus other introductory information and a review of the class.

**June 2025: What is new in the New URAR**

Introduction to UAD 3.6 and more info on topics in May 2025 and Scenario SR 1 - Single Family, used in many demos and discussions. I go through every page of the 20 page document and include what is new with references document F-1

Additional PDFs (on Paid subscriber web page):

Sample Scenario SF1 (Single Family) PDF Report - discussed in this article  
Appendix F-1 URAR Reference Guide v1.2 14 MB  
Fannie Sample Scenario PDFs Combined 15MB  
All scenarios

**July 2025: From UAD 2.6 to UAD 3.6.**

What appraisal software vendors are doing  
First article on this topic. I had live demos on Bradford, alamode, and SFREP. I asked them specific questions about fields. None of the vendors were "ready to go" on their software. 5 screen shots are included at the end of the article.

# I RESPECTFULLY DISAGREE WITH THE "COMPARABLE"

## “By Atom Levi, MAI, SRA, RE Broker

*Editor's comments: The author has been uncomfortable about the use of "comparable" for many years. Atom was finally inspired to write this article. I have known Atom for many years. He is a very savvy appraiser who is willing to speak out about his opinions.*

*His answer to the issue is: "The word comparable implies sameness or equivalence - a condition that virtually never exists in real estate. Every property is unique. If true comparables existed, our work would be called the "Sales Comparable Approach, not the Sales Comparison Approach."*

*I decided not to have readers wait until the end of the article to read this quote. It is repeated near the end.*

## Introduction

The appraisal profession's use of the term "**comparable**," (e.g. "comparable sale," "comparable listing", etc.) is misleading and ultimately harmful - both to the public and to the credibility of the profession itself.

The word needs to be removed from all appraisal literature and replaced with language that better reflects the realities of valuation.

Explaining how market data is selected often becomes frustrating because clients, owners, or brokers frequently ask questions like:

Is that a comparable?"

- "Can you use this comparable?"
- "How many comparables do you use?"

- "Why is **that** a comparable!?"
- "Why is **that not** a comparable!?"

These questions reveal a misunderstanding created by the very word *comparable* - a misunderstanding that suggests properties used in analysis are nearly identical in value or characteristics, which is rarely, if ever, the case.

## Clarifying the Terms

**Comparison:** A process of examining similarities and differences between properties - *the act of comparing*.

**Comparable:** Describes items *suitable* for comparison - implying they are similar enough to be equated.

## In the Sales Comparison Approach, an appraiser:

1. Selects properties for analysis, often called "comparables," and
2. Compares them to the subject property.

However, if a property requires adjustments or a comparison ranking other than "identical" to make it relevant, was it truly "comparable" in the first place? Hopefully an appraiser would not select data that is not genuinely suitable for comparison which of course would lead to uncredible and misleading results.

## Reference Sources

This discussion draws upon two key references:

- (A) *Uniform Standards of Professional Appraisal Practice* (USPAP)
- (B) *The Dictionary of Real Estate Appraisal, 7th Edition* (Appraisal Institute, 2022)

## Defining the Basics

### Appraisal:

"The act or process of developing an opinion of value." (A - Definitions)

### Value:

"The monetary relationship between properties and those who buy, sell, or use them, expressed as an opinion of worth at a given time." (A - Definitions, emphasis added)

### The Sales Comparison Approach

Tradition and habit have led appraisers, clients, and regulators to refer to market data as "comparable sales."

But if a transaction were truly *comparable*, it would require **no adjustments or would be ranked as "identical"**.

Because every parcel of real estate is unique - in physical attributes, location, and/or timing - a more accurate and intellectually honest term should be "**comparison data**," "similar data," or "**relevant evidence**."

### The USPAP Disconnect

USPAP defines "**credible**" as: "Worthy of belief."

Comment: "Credible assignment results require support, by **relevant evidence** and logic, to the degree necessary for the intended use." (A - Definitions, emphasis added)

USPAP requires the use of "relevant evidence" but never defines what that means. Similarly, when USPAP instructs appraisers to "analyze such comparable sales data as are available," it uses "comparable" without defining it either.

By contrast, the **Dictionary of Real Estate Appraisal** defines the Sales Comparison Approach as: "The process of deriving a value indication for the subject property by comparing sales of **similar properties** to the property being appraised..." (B - 170, emphasis added) Notice: similar, not comparable.

**Context Matters: Location and Environment**

Appraisers must always consider the subject property's environment and context.

"**Location**" is defined as: "The relative position of a property to **competitive properties** and other value influences in its market area..." (B - 111, emphasis added)

This reinforces that each property exists in a unique setting - no two are ever identical. Thus, to call something "comparable" before making adjustments or comparison is logically inconsistent. If adjustments or consideration of differences are required, the data isn't truly comparable.

**Why the Change Matters**

While "comparable" is deeply rooted in real estate language and convenient for casual conversation, it's **technically imprecise** and fosters misunderstanding in formal valuation work.

Stakeholders - buyers, sellers, lenders, courts - often assume "comparable" means *equivalent in market value*, leading to unrealistic expectations, disputes, or challenges to the appraiser's credibility.

Using "comparison data" instead of "comparable sales" acknowledges reality: the data are *similar and useful*, but not equal. They are evidence to inform value, not proof of it.

**A Call for Clarity**

The word *comparable* implies sameness or equivalence - a condition that virtually never exists in real estate. Every property is unique. If true comparables existed, our work would be called the **Sales**

**Comparable Approach**, not the **Sales Comparison Approach**.

Removing "comparable" from valuation language would not weaken the process or credibility of appraisal reports - it would strengthen them by promoting intellectual honesty, precision, and transparency.

For the sake of clarity and credibility, let's replace "**comparable data**" with "**comparison data**."

It's a small linguistic shift that can eliminate widespread confusion, enhance credibility, and advance accuracy in the language of valuation.

**About the author**

Mr. Levi has been appraising and involved with real estate since the last century. He began his career in 1971 at the age of 21. He holds a Certified General Real Estate Appraiser license in California and has been licensed as a real estate broker for over 40 years. He earned the Appraisal Institute's SRA designation in 1978 (previously the RM designation of the AIREA) and the MAI in 1983. Mr. Levi holds an AA degree in real estate and a BA degree in

business administration. He authored numerous articles for the Real Estate Appraisers Micro-Computer Users Group (REAMUG). He authored a course on the topic of Component Depreciation for the AIREA. He is also a publisher/co-author of the Independent Contractor's Appraiser Defense Guide. His phone number is 916-838-2927 and his website is [www.alappraisal.com](http://www.alappraisal.com). He has also known Ann O'Rourke since the last century.

Editor's Note: FYI Atom's father named him Atom and other siblings with related scientific first names. "An atom is the basic building block of matter, composed of a nucleus containing protons and neutrons, surrounded by electrons."

*Editor's Notes*

*Atom says he has had this opinion for a long time. He is finally writing about it.*

*FYI Atom's father named him Atom and other siblings with related scientific first names. "An atom is the basic building block of matter, composed of a nucleus containing protons and neutrons, surrounded by electrons."*

**The Problem with "Comparable"**

Aspect	Comparable	Comparison Data
<b>Implied Similarity</b>	Implies high or near-identical similarity.	Recognizes differences; invites analysis.
<b>Perception of Accuracy</b>	Suggests equivalence in value.	Accurately frames the need for adjustments.
<b>Technical Precision</b>	Oversimplifies complex distinctions.	Reflects nuance and analytical rigor.
<b>Common Usage</b>	Widely accepted but imprecise.	Less common but more accurate.
<b>Risk of Misinterpretation</b>	High - implies sameness or equal value.	Low - clarifies that data informs, not equals, value

# The Null Hypothesis and the Appraiser's Covenant: Statistical Humility, Ethical Clarity, and the Future of Credible Valuation

**By Timothy Andersen,  
MNAA, MAI, MSc, CDEI**

*Editor's comments: I am a scientist by education and experience. I understand the null hypothesis, but never saw it applied to appraisals. Thanks to Tim for the enlightenment!*

*I helped a friend working on his Master's thesis for a geography degree. His hypothesis was that local data showed what he measuring (an environmental issue) was proved it was identical to the same research done in another city on the East Coast.*

*He thought his thesis would be rejected. I told him about the null hypothesis and that his research was fine. His BA was in English and he had taken few, if any, science and statistics classes.*

*For appraisers, you start with the assumption there is no adjustment on a 1 car carport vs. a two car garage for this price range and market area. The Null Hypothesis.*

*Your analysis shows this is not correct. There is a difference in value. If questioned by a human or computer reviewer, you can show your analysis indicating no adjustment was required for the subject property. (And maybe say it was a null hypothesis, just to show how knowledgeable you are ;>*

## **Abstract**

This essay argues that the disciplined use of the null hypothesis is not a luxury of the mathematically curious. Rather, it is but a moral (i.e., ethical) necessity of the modern appraiser. Statistical reasoning, properly understood, is not a substitute for the appraiser's judgment but a *restraint upon the appraiser's arrogance*.

When an appraiser omits the null hypothesis, which means implicitly assuming that every observed difference between the subject and a comparable sale is meaningful, bias enters the analysis as silently and fatally as rot enters timber.

USPAP's Ethics Rule proscribes bias explicitly; therefore, failure to employ this methodological safeguard constitutes an ethical and professional breach as well as an intellectual one. In a marketplace now governed by data analytics, reviewers, and artificial intelligence, appraisers who decline the discipline of hypothesis testing will, within two years, likely find themselves professionally obsolete.

## **I. The Epistemological Burden of the Appraiser**

The appraiser's task is *epistemological*: to determine what can be known about value and how it can be known credibly. USPAP's Ethics Rule demands evidence and logic free from advocacy or bias. The null hypothesis, as part of every appraisal, provides this structure.

It begins with disciplined doubt. In other words, the appraiser will make no assumption of difference (i.e., the need for an adjustment) until data compel it. This humility transforms a hunch into knowledge, assertion into credibility. Each adjustment becomes a hypothesis to be tested, ensuring that belief yields to verification.

## **II. The Statistical Mindset as Ethical Practice**

USPAP's ethics are not merely moral but methodological. Bias and advocacy are epistemic failures: seeing what one expects or wants to see rather than observing and interpreting the data as they really are.

The null hypothesis institutionalizes doubt, compelling the appraiser to ask: What if I am wrong? *This is the essence of impartiality*. Bias rarely appears as corruption; it appears as *assumption*.

The null hypothesis demands replicable reasoning, allowing another appraiser to reproduce the logic. Thus, it is both a statistical and ethical ritual discipline of objectivity.

### III. The Mechanics of Doubt: How the Null Hypothesis Operates

Applying the null hypothesis in appraisal practice requires beginning the appraisal process with no assumed difference. Suppose an appraiser suspects corner lots sell higher. The null hypothesis states that mean (average) prices of corner and interior lots are equal; the alternative assumes a difference. Data are collected and tested—*if  $p < 0.05$ , the null is rejected*. This transparency transforms intuition into evidence, aligning with USPAP's demand for credible, replicable conclusions.

### IV. Bias as the Negation of the Null Hypothesis

Omitting the null hypothesis is to *presume causation without evidence*.

Bias enters as narrative, not analysis. USPAP defines bias as any preference that compromises impartiality. Failure to test is thus structural bias because it prioritizes convenience over verification. Behavioral economics shows that humans are prone to *confirmation* and *anchoring biases*. The null hypothesis acts as a safeguard, slowing thought and forcing reconsideration. *Statistical discipline and moral discipline are therefore inseparable*.

### V. The Convergence of Data Science and USPAP

Residential real estate appraisal now stands at the intersection of ethics and computation. AI, AVMs, and big data have redefined credibility as reproducibility. The null hypothesis becomes the passport to relevance, for data science speaks in probabilities and confidence intervals. Appraisers fluent in this language integrate naturally with analytical systems; those who are not will appear opaque in an era of transparency. Trust now depends on data literacy, *making use of the null hypothesis the new grammar of credibility*.

### VI. The Ethical Geometry of Doubt

Aristotle defined virtue as the mean between extremes. The null hypothesis anchors this virtue since it permits productive doubt, avoiding both arrogance and paralysis. Immanuel Kant (philosopher of ethics) would call this universality: reasoning that can be willed as law for all rational agents. James A. Graaskamp foresaw this when he defined real estate as future rights under uncertainty; the null hypothesis quantifies that uncertainty. It is the mathematical embodiment of intellectual humility.

### VII. Practical Integration into the Appraisal Process

Integrating the null hypothesis is a matter of discipline, not equipment:

1. Define each question formally (H? and H?).
2. Collect and clean comparable data.
3. Perform the appropriate test (t-test or regression).
4. Document the method and interpretation in the workfile.
5. Translate statistical results into appraisal significance.

This structure converts private intuition into public reasoning, fulfilling USPAP's call for transparency and credibility.

### VIII. The Consequences of Refusal

Appraisers who choose to ignore the use of the null hypothesis as an appraisal tool will vanish not through scandal *but through irrelevance*.

Lenders and regulators now demand statistical verification. Unsupported adjustments will be flagged as non-replicable variances. Clients compare appraisals against algorithmic estimates; only those appraisers who can explain discrepancies through tested hypotheses will endure.

The profession's survivors will be statistically bilingual, interpreting data ethically. The rest will fade as artifacts of an intuitive era.

### IX. The Moral Dimension of Statistical Literacy

Further, the null hypothesis institutionalizes humility. It does not replace judgment but purifies it. It transforms integrity into method and makes truth-telling routine. USPAP's public trust mandate is served when every conclusion is open to falsification. Statistical literacy, therefore, is moral literacy. It aligns the appraiser's intellect with the market's reality. In an age of speculation and data, *the refusal to measure uncertainty is the real unprofessionalism*.

### X. Conclusion: The Future Credibility of the Appraisal Profession

In residential real estate appraisal, the future belongs to those appraisers who choose to balance humility with precision. The null hypothesis unites USPAP's ethical ideals with data science's analytical rigor.

By adopting it, the appraiser commits to humility, transparency, and professional survival. On the other hand, failure to do so invites bias and extinction. Within twenty-four months, data-literate appraisers will dominate; others will fade into archival silence. The null hypothesis is thus not a statistic. It is, rather, the moral covenant of modern valuation.

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