

February 25, 2021

Federal Housing Finance Agency Office of Housing and Regulatory Policy 400 7th Street SW, 9th floor Washington, D.C., 20219 (Transmitted via email to AppraisalRFI@fhfa.gov)

RE: FHFA Request for Information on Appraisal-related Policies, Practices, and Processes.

Attachments: Full Content of CRN Stakeholder Responses (PDF)

The Collateral Risk Network was founded in 2003 by Joan Trice, as a part of her for profit enterprise, Allterra Group, LLC. The Collateral Network, Inc. (CRN) was established as a non-profit, 501(c)(3) as of January 2020. Our primary mission is to advance the use of sound collateral risk management principles, policies and practices within the housing finance industry. CRN promotes a broad multi-stakeholder approach to risk management that focuses on valuation, collateral risk, and regulations.

The Collateral Risk Network is representative of all collateral risk stakeholders including- lenders, investors, rating agencies, private mortgage insurers, appraisers, Appraisal Management Companies (AMCs), technology providers, data providers and regulators. Our stakeholders, all concerned with collateral risk, approach risk management from different perspectives. As such, our response to the RFI will reflect this diversity. We have organized our response into four stakeholder groups: Lenders, AMCs, Technology providers and Appraisers.

The nineteen questions in the RFI were divided between the four stakeholder committees. Every question was assigned to at least one stakeholder committee; many of the questions are addressed by all four groups. Committees could also address any other questions that were not assigned to their group. The committees were encouraged to provide unvarnished input and assured that their responses would be included in total within our final submission. As with the diversity in stakeholder perspectives, there is also differences of opinion within the stakeholder groups. Although most responses are the consensus of the group, some responses reflect individual opinions within the groups. Attached to this introduction are the total responses provided by the stakeholder groups organized by question and stakeholder group.

After reading the prolific material from the stakeholder committees, five general themes emerged. Below is a brief summary of these themes.

(continued on next page)



New Valuation Solutions

The clear consensus of all four stakeholder groups is that there is a need for new valuation solutions between the binary choice of a waiver or full traditional appraisal.

Inside of this continuum of valuation products, the contributions of appraisers versus third-party providers were a concern to stakeholders. Stakeholders recognize the potential benefits of decoupling collection of property data at the site with the valuation analysis that occurs at the appraiser's desk. These benefits can include a better extension of services to underserved market, maximizing the utility of the aging appraiser population and some process efficiencies.

Benefits, however, could become additional risks if the third-party collection of site data is not performed well and credibly. Stakeholders strongly note that third-party data collectors should have some regulatory oversight/licensure, standards and training. Stakeholders highly encourage the use of appraisal trainees for property data collection. Technology is also recognized as a potential to provide structured process and data that contributes to the veracity of the information the appraiser will use for the valuation.

Several stakeholders commented that the motivations of the GSEs are at odds with designing a modern valuation process that serves the broader market. The current modernization initiative serves the proprietary needs of the GSEs. These stakeholders saw a conflict of interest in allowing the GSEs to continue as the de facto custodian of the appraisal process.

Population of Appraisers

All four stakeholders recognize the declining professional population of appraisers and the additional risk this adds to valuation. Recent strains on appraisers because of COVID-19, high business volume, and proposed valuation changes may be overwhelming to late career appraisers, exacerbating the problem. Compounding the problem of exodus is the lack of new entrants to the profession. Residential appraisal trainees are few and far between, and those that are interested in the profession are having a hard time becoming credentialed.

The Enterprises have historically supported the limited use of appraisal trainees. Lenders however continue to restrict the use of appraisal trainees and even licensed appraisers. Stakeholders encourage strong positive communication from the Enterprises and Regulators reassuring the use of appraisal trainees. Standardizing an appraisal trainee credential nationwide could also encourage more lender participation. Some stakeholders note a logical disconnect between the use of third-party non-appraisers to collect property data while at the same time prohibiting training appraisers from solo appraisal site data collection.

Existing Alternative Appraisal Solutions

Stakeholder committees focused primarily on evaluating the use of appraisal waivers and "test and learn" activities conducted by the Enterprises. Stakeholders acknowledged that the COVID-19 flexibilities provided by the Enterprises are fertile ground to harvest new information about the valuation process and property data collection. There may be utility in similar flexibilities beyond their use for business continuity.



By and large, stakeholder groups did not have reliable data on the efficacy or performance of alternative appraisal solutions in the "test and learn" environment. Anecdotally, some noted while using alternative workforces, there was not significant savings in either time or cost. All stakeholders again reiterated the importance of standards, training and regulation of third-party contributors.

As to appraisal waivers, responses were prolific but not necessarily harmonized. Lenders noted that appraisal waivers have been useful as for "pressure relief" during recent COVID-19 driven high-volume markets, however, they are not a solution to waning appraiser numbers. They also noted that the Enterprises have inconsistent qualification standards of waivers on the same property. Lenders seek more transparency in the criteria utilized for waiver approval. AMCs noted that waivers may be able to measure a specified percentage of risk but are not designed or qualified to measure value. Appraisers distinguished waivers and other alternatives as directed at the "simplest" of properties while the appraiser is tasked with those remaining appraisals that are more complex. Those in valuation technology warned waivers as an alternative collateral solution may have a negative impact on the appraisal profession by discouraging new entrants to the profession. If waivers continue at their current level, and the demand for valuations by appraisers go down, the effect on the appraisal profession will be significant and detrimental.

Technology and Data

Stakeholders unanimously encourage Enterprise collected appraisal data be made available to the valuation community. Appraiser Stakeholders acknowledge that data needs to be selective, and they understand Enterprise concerns over appraisers simply accepting and regurgitating the same data. More factual data, however, would be useful to the appraiser. Lenders agree that objective data would be useful and benefit the industry in a number of ways including AVMs, quality assurance and controls and reliable market metrics. Lenders also note that providing UCDP flags to the appraiser proactively would reduce appraiser frustration and cycle times. Those in the Valuation Technology group concur that specific elements and messaging could be deployed to the appraiser through their appraisal manufacturing software. The Technology Group also cautions about potential data security and consumer privacy risk, recommending a third-party between the appraiser and the data source.

The Lender and Technology Stakeholder groups had significant concerns about the UAD update process. Lenders noted that there needs to be more focus on improvement of valuation methodology and less on extensive data capturing containers. Technology providers are apprehensive about future proofing appraisal data standardization and meaningful change to the MISMO standards. Both groups state that the disruption and economic impact of the implementation will be costly for our industry and ultimately the consumer.

Racial Bias in Valuation

All Stakeholders groups providing feedback regarding racial bias in the valuation process agree that it exists at some level. All stakeholders also believe that any intentional discrimination that does transpire represents a small minority of the appraisal profession. That being said, stakeholders are supportive of additional research, education and enforcement regarding discrimination in the appraisal profession. Stakeholders noted that appraisers report the actions of market participants; if these market participants exhibit systemic discrimination, it is likely to be unintentionally replicated in the results of the appraisal.



Technology providers added additional information regarding racial bias and technology. This stakeholder group stated that removing appraisers from the site visit portion of the assignment could reduce racial bias and separate the ethnic background of the owner from the factual data of the property. Technology stakeholders also alert to concerns around the use of artificial intelligence and deep learning technology. They state these models are only as good as the materials used to train them and models can exhibit bias (unintentional or otherwise) in the materials used to train them.

In closing, the Collateral Risk Network is pleased that FHFA is seeking input on accurate valuations. As introduced, CRN stakeholders have diverse perspectives on collateral assessment and inside the stakeholder groups themselves there are differences of opinions. Regardless of our differences, quintessentially, all CRN members share the goal to measure, control and reduce collateral risk. We hope the full contributions of the stakeholder groups attached will be insightful and move us all closer to that goal.

We welcome any additional inquiries and look forward to conversations in future.

Sincerely,

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<u>AMCs</u>

A1.1 AMCs

Is there a need to provide new valuation solutions that address industry identified issues of appraiser capacity, turn-times, training, and rural and high-volume market coverage? What are those potential solutions? What are the risks of these policies and the challenges in implementing them?

(a) Yes. Much of the current day appraisal process is rooted in past necessities and perpetuated with the "we always did it this way" mentality. Present conventional policy locks the appraisal industry into archaic processes and outdated technology. Another primary concern is that the traditional appraisal method seems to require the appraiser to perform every single step in the process. As an example, Fannie & Freddie have historically supported the (limited) use of appraisal trainees if they followed state guidelines, but lenders, appraisers and AMCs seem to find this to be 'new' information. In other words, part of the solution regarding capacity has always been available but for the misguided and misunderstood policies of lenders, investors, state appraiser regulators, appraisers and the entities that guide and support the appraisal industry.

(b) PAREA is a step in the right direction (and should be implemented at a state level with haste), so that supervising appraisers, which are tough to come by, cease to be the bottleneck for aspiring appraisers entering the industry. Additionally, and along with PAREA, perhaps ASC AMC state registry fees could be used to incentivize supervising appraisers willing to take on trainees and train them through to licensure? This could serve two purposes; allow the supervisor to compensate the trainee better and provide direct incentive for the supervisor to see the trainee through to licensure. Expanding valuation services, incorporating alternative workforces, and leveraging modern technology to do much of the once required heavy lifting will increase individual appraiser capacity, reduce turn-times, and better arm appraisers to meet high-volume markets. To successfully incorporate alternative workforces will require a new set of inspection standards and training that will be acceptable to all the actors (lenders, investors, regulators, and appraisers). The fundamental structure and examples to achieve this exist today; only the will is lacking. Rural markets present a unique challenge. The lack of sufficient volume has always been a barrier to attracting a robust level of appraisers. We see the same dynamic forces impacting adequate health care, schools, jobs, etc., in many rural areas. We should incent appraisers to work in those communities. We do that now in many other remote communities ... by building expensive housing and defining the area as 'Resort'... and paying the appraiser higher than typical fees. All change involves risk. However, pitfalls associated with modernization can be identified and mitigated - and will outweigh the threat of not doing anything.

(c) Change is inevitable. Growth is intentional. Failure to change is often fatal. COVID-19 has prompted most businesses to think and do things differently out of necessity. Will these changes survive when conditions return to "normal?" The appraisal industry needs to forensically review the lessons learned from 2020 and identify those alternative appraisal options that most successful navigated the path between safety, credibility and acceptable risk.

A1.2 AMCs

Are there opportunities for process improvements that allow non-traditional valuation services (inspection-only, desktop, exterior-only) to augment traditional appraisals? Please elaborate on the risks, challenges and benefits. Separately, are there opportunities to improve traditional appraisals to mitigate problems and concerns that have been observed to date?

(a) Clearly there are opportunities for process improvements. Currently, the GSE's – and by default the mortgage and lending industry – have focused on both ends of the spectrum, waivers versus full appraisals. Instead, there should be multiple risk-based appraisal product options. Not every lending decision needs a full traditional appraisal approach. That said, all collateral risk valuation approaches must (should?) incorporate an appraiser's expertise at some level in the process.

(b) Hard to believe or understand how any appraiser-driven assessment done by a qualified competent appraiser would expand lending risks, create challenges, or diminish benefits. Waivers on the other hand, have a decisioning process based on a borrower's credit, income, and asset profile as well as some (undefined) historical data on the subject property. Waivers may be able to measure a specified % of risk under many conditions, but they are not designed – or qualified – to measure value.

(c) Yes, here are some examples of areas of potential improvement:

- Highly detailed and accurate floor plans in a consistent and standard fashion
- 3D measurements and layouts displaying key factors related to quality of construction like ceiling height, volume of rooms, etc.
- Measurements of walls, flooring material, fenestration, and more
- Spatial context of any contributing factors positive or negative that influence the value of property.
- Year, make, and model of major appliances and mechanicals in the home.
- Complete visual record of the collateral providing full transparency of the condition and other relevant factors.
- Geo-coordinates and time stamps that accurately capture location and time the data was captured.

A1.4 AMCs

Would utilizing alternative inspection workforces, such as insurance adjusters, real estate agents, and appraisal trainees assist with addressing appraiser capacity concerns? Are there risks of using third-party non-appraisers? If yes, How?

(a) Yes. Alternative inspection workforces with standardized training in property data collection should instill confidence in the lender, investor, appraiser, and regulator communities. It would encourage and enhance highly qualified appraiser's decision to adopt a trainee (or work with 3rd party data collectors) to increase the appraiser's productivity and expand their capacity.

(b) With proper - and standardized – training and utilizing cutting edge technology that verifies the subject's identity and composition, there should be no increase in risk. Leveraging alternative workforces without appropriate competency would introduce significant risks to financial institutions and borrowers and risk corrupting the data itself.

(c) Poorly trained and/or lack of standardization in the inspection process could erode confidence in the entire appraisal process.

B2.5 AMCs

What are the challenges associated with quality of service, enforcement and consumer protections related to non-appraiser entities providing property inspection data?

Quality of Service – Quality of service relates to how well the service provide meets expectations which is partially tied to how effectively those expectations are communicated to the service provider. Therefore the burden is on user to clearly express desired/required service levels, track the vendor's effectiveness of meeting those service levels, and managing the vendor accordingly. This course of action is true regardless of the industry group from which the vendor comes.

Enforcement and Consumer Protection – These two categories go hand in hand. Minimum standards are to be rooted in protection of public trust and, therefore, consumer protection. All stakeholders including lenders, AMCs, appraisers, and potential regulatory bodies ought to have a say with regard to the content of the minimum standards, communication of said standards, and enforcement. The challenge comes to determining minimum standards, who'll be the regulatory body, and penalties.

Many of the risks and challenges associated with using non-appraiser entities will be addressed and mitigated by requiring the use of certified property inspection professionals. (ASHI, State, HUD REAC, or ICC Certified). Companies who provide such services should provide ongoing training and feedback to their property inspectors and data collectors. As with any effective enterprise, standards must be established to drive consistency, enhance credibility, and support the ability to replicate findings.

B2.6 AMCs

Is there any data or evidence you could share regarding the performance of alternative appraisal solutions versus traditional appraisals?

Yes, an old FHA requirement for professional inspectors (ASHI, State, HUD REAC, or ICC certified or equivalent) inspectors reporting of the condition of the plumbing, heating, and electrical systems, roof and structural condition was found to result in a significant reduction of repossessions.

Evidence, at this point, concerning the efficacy of employing alternative work forces is anecdotal but reliable. Sources who've worked with alternative work forces, namely non-appraiser workforces, indicate a general lack of time and cost savings. From a cost perspective, it stands to reason that the more parties you have at the table, the costlier the bill is likely to be. That said, perhaps those parties weren't using the most effective alternative work forces or, perhaps, they lacked the capacity to manage said workforces efficiently. However, knowing they stood to gain from the successful utilization of alternative work forces their account of their experiences was deemed reliable.

Additionally, as addressed in previous points, minimum standards and accountability for alternative work forces, from a regulatory perspective, has yet to be established.

C1.1 AMCs

What do you envision the impact of appraisal process improvements as described in this RFI to be on the appraisal industry? What impact, if any, has increasing use by the Enterprises of alternative appraisal solutions had on the availability and/or quality of traditional appraisals?

With a widespread approval and offering of a range of valuation products, using a varied workforce, we envision the potential for:

- improved consistency and reproducibility in property data collection as a result of enhanced technology and rule sets
- changes in turn time as a result of improving the industry's capacity problems, however we know that some clients involved in the pilot programs did not see an improvement in efficiencies.
- a risk management waterfall of products.
- reduce the potential for Undue Influence and perceptions of Appraisal Bias by eliminating the appraiser's interaction with the borrower
- Enable appraisers to continue their careers for longer durations
- Improve the quality of data that the GSEs use to make critical decisions.

However, all of this is incumbent on standards, transparency, significant testing of the range of products to a single property to ensure quality and improved consistency and reproducibility, and the sharing of results. It is too soon to measure any impacts on the industry. In some measure, a percentage of appraisers will likely be dissuaded from doing GSE work and look for alternative client assignments.

C1.2 AMCs

What would be the impact of appraisal policy and process improvements to the mid or late career appraiser? Do you believe late career appraisers would delay retirement if they could focus on specific valuation services like desktop appraisals? Or alternatively, would late career appraisers cease operations due to technology adoption challenges?

It is true that some mid- or late-career appraisers may be reluctant to change the way they've done things for many years, or have a fear of new technology. However, there has been an increased acceptance of desktop and hybrid appraisal assignments by many appraisers, including late-career appraisers as a way to extend their careers. These types of assignments that wouldn't require the appraiser to spend a great deal of time driving or navigating harsh climates, may dramatically impact their careers in a very positive way.

Although this question asks about mid- and late-career appraisers, it is also important to recognize how the increased use of technology is likely to attract a younger element to the appraisal profession. This segment of the population has grown up with high technology and is very comfortable with its use. Now with the possibility of simulated training to obtain an appraiser license or certification, and the enhanced use of technology for desktop and hybrid appraisal assignments, the result could be a potential pathway for this younger sector of the population.

One area of concern for appraisers of all ages related to hybrid assignments revolves around those who perform the property data collection inspections. For this reason, it is important to utilize a workforce for the inspection component of the assignment that is competent, ethical, and accountable. Individuals with expertise in the real estate industry, such as real estate brokers and agents, could not only be readily trained on the requirements to properly perform an inspection, but they would also be accountable since they have licensing requirements similar to appraisers.

One area that could greatly facilitate the use of hybrid appraisal assignments is the growing prominence of technology that can be used in these assignments. This includes, but is not limited to tools that offer high-resolution digital photos, comprehensive 3D scans of a home's interior, smartphone apps that can automate GLA calculations, and even apps that a homeowner could use with no training that provide secure and verifiable

critical information about the property to the appraiser. These types of tools could not even be imagined when appraisers began walking through homes decades ago. Today, the notion that an appraiser absolutely must physically enter a home in order to collect property characteristics simply no longer holds water.

C1.3 AMCs

Do you believe appraisal policy and process improvements would have a positive impact on access to credit, including for rural and underserved markets by providing additional valuation services that serve the needs of these markets?

Traditional appraisals have historically created challenges to obtaining competitive and timely financing in rural and underserved markets and are currently most dramatically impacted by appraiser capacity. Often times these lower-median-income markets are paying higher fees and waiting longer to receive service.

Reducing the reliance on traditional appraisals in these markets and allowing alternatives that reduce demands on appraisers would logically have a positive impact to both appraisal services and equal access to credit. It is important to note, these markets tend to be much more nuanced and likely warrant the use of local area professionals. Leveraging proper technology and incorporating the use of a responsible hybrid process could allow for the limited amount of experienced professionals to complete a higher number of transactions.

It is also important to note, we must create more accessible opportunities for new appraisers to enter the profession and work in underserved markets. The same very tools being utilized to support hybrid can also be excellent ways to support the supervisor and apprentice relationship. The use of new tech will help to attract a new younger generation of professionals and support more trust in this process. Moreover, incentives for tenured appraisers to train and trainees to move to underserved areas ought to be considered, if they have not already. Such incentives could possibly be funded through ASC registry fees.

C1.4 AMCs

Is there discrimination in current collateral valuation practices? If you believe there is discrimination, describe the impact. Please provide any relevant data or analyses to support your position. Conversely, are there concerns that alternative or automated solutions could have a discriminatory impact?

As an organization we support fully the core tenant of USPAP which is that an appraiser must be unbiased "An appraiser must perform assignments with impartiality, objectivity, and independence, and without accommodation of personal interests." Additionally, "must not perform an assignment with bias;" or "must not use or rely on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value;"

The "Is there discrimination" question could be asked of any industry, and the answer I believe would be similar to ours, that within the defined group, in our case 90k+ credentialed appraisers there are individuals who make discriminatory choices based on race, color, religion, marital status in their work. We do not believe standard practices and methodologies of estimating value do not contain built in discrimination.

We are supportive of addition research into appraisal data to deepen our understanding of any potential biases or discriminatory actions. We also suggest that the analysis needs to be broader than only appraisal as appraisers, there are numerous factors from the real estate agents, to the loan officers, to the underwriters and loan processors.

We are concerned about misunderstandings of normal variations in a value estimate process that are attributed to bias or discrimination. Two different appraisers using different data sets regularly arrive at measurably different value conclusions for the same property. Given the number of variables analyzed by two appraisers appraising the same property, tying unfavorable differences to discriminatory practices is unsubstantiated and lacks intellectual integrity.

In recent articles, studies and congressional testimony, we hear comments where individuals involved seem to think that appraisers create value, drive value, and cause value to change, rather than solely estimating and reporting value based on market behavior observations – a fundamental and non-trivial misunderstanding.

Three main discussions are emerging around the possibility of discrimination and racial bias in appraisal:

- Individual intentional bias, which are bad actors knowingly changing their approach based on personal bias
- Unconscious bias, where common human perspectives based on experience are undetected without training

• Systemic bias, where market reinforcement of the disparate impact created by past policies and social inequities is reflected in the marketplace and, ultimately appraisals

The answer to the question, "Is there discrimination?" is extremely important and should be investigated thoroughly, backed by accurate data.

C1.6 AMCs

Do you have any additional feedback on issues and questions raised by this RFI?

I believe that this RFI is a microcosm of deep bias on the part of the GSEs. There's little in the way of 'modernization' reflected here. We're being asked to 'weigh in' on what we think will help do things faster? Why? Are we really competing with Waivers or merely supplying updated information for the perpetuation of refining the credit risk process. We make a point of insisting that Collateral Matters. Does it? If 50% of our current market is supported by waivers, the more accurate mantra might just be: 'Acceptable Risk Matters' (of which collateral is the little 'c' in the equation)

What tools, studies, data are we generating that really help reveal the health and direction of valuation regarding homes, neighborhoods, communities? Shouldn't this be a by-product that the keepers of the data be sharing – or do we not think it's important? It would seem to be correlated to risk on some level?

We do 90%, 95%, 97% 100% financing. Each of those loan programs are essentially lacking in any real equity as a backstop for a lender. The 1st major breakdown of a system (heating, electrical, plumbing, roof – even just a water-heater) has the capacity to break a homeowner. Job loss, layoffs, illness – things that are often outside the control of people expose their vulnerability. If we believe that home ownership is a social good, builds communities, gives citizens an opportunity to deepen their roots and to build wealth (it is the real backbone of wealth building for our country), why do we not support a philosophy that recognizes the absurdity of the above loans. Instead, have them lenders make a 100% (that's essentially what they're doing anyway) and impound that 'down payment' as a backstop. 12 months PITI reserves. Our goals should be stability and opportunity; all other things being equal, appreciation will follow.

<u>Appraisers</u>

A1.1 Appraisers

Is there a need to provide new valuation solutions that address industry identified issues of appraiser capacity, turn-times, training, and rural and high-volume market coverage? What are those potential solutions? What are the risks of these policies and the challenges in implementing them?

The barriers to entry remain high and the industry still encounters client imposed restrictions on the use of licensed and trainee appraisers. CRN has already submitted a request to FHA to allow trainees to solo inspect properties (as their State law allows) with the FHA Appraisers signing as Supervisor (did not inspect). We also strongly encourse the ASC and therefore the States to standardize an "appraiser trainees" credential. Trainees are by definition the future, and currently it is cumbersome and often not economicially viable for trainees and supervisors to achieve a certified credential. The Appraisal Foundation is developing new appraiser pathways like PAREA and the CRN encourages additional and ongoing efforts to streamline and expedite the career path for new industry entrants.

A1.2 Appraisers

Are there opportunities for process improvements that allow non-traditional valuation services (inspection-only, desktop, exterior-only) to augment traditional appraisals? Please elaborate on the risks, challenges and benefits. Separately, are there opportunities to improve traditional appraisals to mitigate problems and concerns that have been observed to date?

There are certainly opportunities for process improvement allowing augmentation to traditional appraisals.

- Risks associated with non-traditional valuation services include:
 - The use of individuals lacking the competency to perform credible services
 - Many are unregulated operating outside the jurisdiction of regulators
 - Absence of and/or Insufficient requirements / levels of training
 - Lack of standardization of hybrid forms

• Thus far the CRN has not seen data indicating success to the bifurcation initiative in the form of reduced turn times or cost to borrowers

• Exterior-only appraisals pose a risk because so much of a property's value is predicated on the quality and condition of the building components, which, historically, have not been verified. Technological advancements enabled the enhancement of the verification process for appraises and should be the focus of continued improvement and use with defined processes and oversight.

B2.1 Appraisers

How could the Enterprises make additional data available to appraisers while promoting appraiser independence without crowding out other data providers? What additional challenges arise if the enterprises provide data to appraisers?

We contend the sharing of GSE aggregated data would likely need to be selective. The GSEs have valid concerns about creating an echo chamber whereby appraisers simply accept all GSE data without market validation or subjective interpretation. Some data that is more factual (e.g. market prices trends) could be useful while highly subject data (e.g. Q and C ratings) should be left to each appraiser to opine individually.

B2.5 Appraisers

What are the challenges associated with quality of service, enforcement and consumer protections related to non-appraiser entities providing property inspection data?

We contend this issue is interrelated to question A1.1. We have already identified the needs and challenges with new entrants into the appraisal field. If non-appraisers have been considered for bifurcated assignments, this would obviously become another good option for trainee appraisers. The risk of using non-appraisers for property inspections is the current lack of oversight relating to proper training, requirements to perform services ethically and competently. As such, there currently are no consumer protections. Would a non-appraiser have any manner of credential? Need to have background checks, training, accountability. Standards(?) on methodology on data collection, GLA, etc?

B2.6 Appraisers

Is there any data or evidence you could share regarding the performance of alternative appraisal solutions versus traditional appraisals?

We are not privy to data on performance of valuation solutions. However, reduced Scope of Work options are geared towards low risk loans, which makes a correlation of valuation product to loan loss unlikely or impossible. In any spectrum of valuation products, the appraiser must ensure the Scope of Work is appropriate for any given assignment.

C1.1 Appraisers

What do you envision the impact of appraisal process improvements as described in this RFI to be on the appraisal industry? What impact, if any, has increasing use by the Enterprises of alternative appraisal solutions had on the availability and/or quality of traditional appraisals?

Over the past several decades, appraisal process improvement has been more focused on and limited to efficiencies in packaging and delivery. Only in recent years has the industry moved in the direction of expanded use of technology in support of the development of and support for the opinions and conclusions. We do not have data related to any impact to the availability and / or quality of traditional appraisals resulting from the Enterprises use of alternative appraisal solutions beyond the temporary relief to backlogs and COVID related inspection challeges that were provided by appraisal waivers. The data indicate a relief to these backlogs but no evidence of improvement to the quality of traditional appraisals. The GSEs should understand that as waivers and other alternatives are more directed towards the "simplest" properties, the appraiser is tasked with doing full appraisals are a more complex subset of the overall valuation segment.

C1.2 Appraisers

What would be the impact of appraisal policy and process improvements to the mid or late career appraiser? Do you believe late career appraisers would delay retirement if they could focus on specific valuation services like desktop appraisals? Or alternatively, would late career appraisers cease operations due to technology adoption challenges?

Some later career stage appraisers may be slower to adopt change. Some may welcome an opportunity to get out of the field but have a "comfort zone". They may choose to focus on non-lender valuation assignments. This issue

again relates to an improved path for new trainee appraisers.

C1.4 Appraisers

Is there discrimination in current collateral valuation practices? If you believe there is discrimination, describe the impact. Please provide any relevant data or analyses to support your position. Conversely, are there concerns that alternative or automated solutions could have a discriminatory impact?

We submit there is an inherent bias in all human beings, including appraisers, but the CRN believes the appraiser community for the most part completes valuation services ethically, reporting market data as it exists without insertion of bias toward an specific result. Appraisers are reporting the reactions of participants in a given market, so if discrimination exists, it is the result of the market participants, not the individual appraiser. Conversely, artficial housing price stimulus could cause unintended consequence on affordability. Lending programs are more likely a solution to benefit underprivileged communities since attempting to alter the valuation process based on race is contradictory to the intended goal of interpretating the market absent such factors. Any appraiser who intentionally engages in distorting an appraisal assignment based on race, gender, or protected class should remain subject to disciplinary action by the credentialing State.

C1.5 Appraisers

What are the fair housing impacts of current FHFA and Enterprise policies and procedures on appraisals and valuations, and how can these policies change to further fair housing? Please provide any relevant data or analyses.

We have no data or suggestions that current FHFA or Enterprise policy have any adverse impact on fair housing issues.

C1.6 Appraisers

Do you have any additional feedback on issues and questions raised by this RFI?

We have no additional feedback and appreciate the opportunity to participate in this RFI.

Lenders

A1.1 Lenders

Is there a need to provide new valuation solutions that address industry identified issues of appraiser capacity, turn-times, training, and rural and high-volume market coverage? What are those potential solutions? What are the risks of these policies and the challenges in implementing them?

Is there is a need to provide new valuation solutions that address industry identified issues of appraiser capacity, turn-times, training, and rural and high-volume market coverage?

• Yes. In addition there is an industry identified issue of declining appraiser expertise (bench strength) in rural/complex assignment.

What are those potential solutions? Potential solutions can be in process, product, and policy.

• In terms of policy, the users of valuation services (the industry) need to determine if the valuation process and resulting collateral risk management should be driven by the GSEs or if such oversight should sit with an neutral party that does not have a direct interest in the actions taken or not taken. Is there simply a conflict of interest if the GSEs continue to drive such substantial change in the valuation industry which is designed to be independent?

• Overall, GSE policy lacks clarity and is subject to misinterpretation and inefficiency for those who contract with the GSE. Clarifications of terms and quality scoring which impacts the Seller's representation and warranty coverage should be reviewed for improvement and transparency.

• The GSE UAD and modernization effort lacks transparency to the evolution of impacted GSE Policy updates (Seller/Servicer Guide etc...). This has not been part of the dialog within the work groups to date.

• Collateral risk is not a one-size fits all approach. On-us/Off-us loan risk is quite different and should allow for different valuation product/process approaches. Improvement opportunities in both Process and Product are available but are dependent upon the overall risk of the transaction being considered. Whether bifurcation of the inspection or the development of alternative scopes of work, the overall risk must be considered :

• 1. Bifurcation is a process change that in some cases could make sense and solve extended turn-times in rural or highly stressed markets. A certification for inspectors or leveraging another licensed skill set (General contractor, Home Inspector, etc...) would be essential to limiting the risk of such a change. Brokers are specifically not mentioned as potential providers as the actual or perception of a conflict of interest would not be acceptable.

• 2. A "Hybrid" valuation product with a reduced and/or modified scope of work is another opportunity that could assist in stressed markets lessening the overall time the appraiser spends on the assignment, but would not lessen the overall credibility of the result .

What are the risks of these policies and the challenges in implementing them?

- Bench strength of appraiser resources are dwindling and are not being replaced at the speed that is needed to keep up with the industry.
- Overall, management of a bifurcated approach will prove to be challenging from a vendor management and quality control perspective. The cost/benefit is not likely positive especially for Lenders who currently do not use third-party AMCs.
- State by State licensing differences will be challenging to implement and manage i.e. (home inspectors are not licensed in CO, but they are licensed in CA).
- AIR risk of the inspector being influenced by parties to the transaction.
- Without sufficient impartial collateral risk oversight, the valuation industry could be changed in a manner

that does not adequately address all intended users of valuation products.

• The procedural impacts in training and support for loan officers, underwriters, appraisers and others involved in the lending decision will be extremely impactful to the business (cost, time, etc..).

• The risk of the all parties uniformly applying the new logic of the newer dynamic for will be challenging to control and therefore a quality assurance risk.

A1.2 Lenders

Are there opportunities for process improvements that allow non-traditional valuation services (inspection-only, desktop, exterior-only) to augment traditional appraisals? Please elaborate on the risks, challenges and benefits. Separately, are there opportunities to improve traditional appraisals to mitigate problems and concerns that have been observed to date?

Are there opportunities for process improvements that allow non-traditional valuation services (inspectiononly, desktop, exterior-only) to augment traditional appraisals?

- This is available today and being utilized. The GSE COVID Flexibilities allow for this today, but is not as efficient of a process as it could be. See comments above.
- Beyond the pandemic, there are property types/market health that would allow similar flexibilities for business continuity assuming the overall loan/collateral risk is addressed in a safe and sound manner.
- All parties engaged in property data collection should have a minimum certification and standards applied such as the ANSI Standards of Measurement (Gross Living Area).

Please elaborate on the risks, challenges and benefits. Separately, are there opportunities to improve traditional appraisals to mitigate problems and concerns that have been observed to date?

• With each flexibility and/or change to the valuation process or product, the risk should be equally shared by the Enterprise and the Seller. The lack of scoring transparency and sliding scale of what will or will not receive rep and warrant coverage is unacceptable.

• Any new approach to valuation (Process/Product) need to connect back to the existing technology and governance that the industry participants are subject to regulatory oversight with regard to information security and other related compliance that is different than the GSE; as well as reputational risk related to failures in non-traditional products.

- Non-traditional products also increase risk in borrower disputed appraisals and increased cost to manage and turn times. The results of which could lead to a poor consumer experience.
- Clarity regarding the scope of the GSEs prevue in needed when it expands beyond conventional loans that would be sold to the GSEs.

A1.3 Lenders

Do appraisal waivers have a place in Enterprise appraisal policy and process, and if so, for what segment of loans? What are the current risks to Enterprise safety and soundness in how appraisal waivers are offered? Would caps or other limits on their usage be appropriate?

Do appraisal waivers have a place in Enterprise appraisal policy and process, and if so, for what segment of loans?

• Yes, for on-us refinance for a limited period of time during specific market conditions.

What are the current risks to Enterprise safety and soundness in how appraisal waivers are offered?

- Lack of transparency in the criteria that allows or does not allow for a waiver.
- Increase in climate change, a higher risk of damaged properties being awarded a waiver.

- The unknown Condition and salient features including verification of GLA (a standardized measurement process) is an increased risk.
- Increase in waivers and the long term impact is unknown at this time.
- However, fewer appraisals moving thru UCDP/LCA/CU, would certainly impact the performance of HVE.

• Downstream impacts to the future need for appraisals after the waiver environment (AVM, HELOCs, Loss Mitigation, etc...).

Would caps or other limits on their usage be appropriate?

• Is there currently a cap? If so, how was that arrived? If not, why not?

• Yes, based on field characteristics (market, condition, etc...) and deal characteristics (Borrower worthiness, LTV, etc...)

- Yes, based on HVE performance
- Yes, based on the impact of QM

A1.4 Lenders

Would utilizing alternative inspection workforces, such as insurance adjusters, real estate agents, and appraisal trainees assist with addressing appraiser capacity concerns? Are there risks of using third-party non-appraisers? If yes, How?

Would utilizing alternative inspection workforces, such as insurance adjusters, real estate agents, and appraisal trainees assist with addressing appraiser capacity concerns?

• SEE A1:1

Are there risks of using third-party non-appraisers? If yes, How?

- Perhaps the GSEs should share the results of the 1004p/1004h pilots including direct feedback from the Lenders that participated to understand the cost/benefit of such a process
- The lack of recourse on the inspector/inspection is a control risk. The increase in "re-work" to develop a credible appraisal is a concern (cost, time, quality)

A1.5 Lenders

Is there a need for additional policies and controls to balance potential risks with efficiency benefit from appraisal modernization? If yes, please provide your recommendations.

Is there a need for additional policies and controls to balance potential risks with efficiency benefit from appraisal modernization? If yes, please provide your recommendations.

• Any new approach to valuation (Process/Product/Policy) needs to connect back to the existing technology and governance that the industry participants are subject to regulatory oversight with regard to information security and other related compliance that is different than the GSE; as well as reputational risk related to failures in non-traditional products

• Any new approach should include an evaluation of the Seller's obligations and rep and warrant risk

• As in the theme of the RFI questions and responses, for every action there is a reaction and an accompanying risk. This risk should be one that is transparent and does not jeopardize the current and future book of loans

A1.6 Lenders

Do the objectives as outlined for the UAD update and forms redesign meet the current and future needs of the mortgage industry? Are there opportunities for refinements or additions?

Do the objectives as outlined for the UAD update and forms redesign meet the current and future needs of the mortgage industry?

• No. Focus on improving the valuation outcome for accuracy and quality is lacking. The focus appears to be on data capture that is not necessarily consistent with improvement of valuation methodology.

• There is a lack of regard to the cost impact for Lenders, appraisers, and AMCs in regards to their technology infrastructures which will be dramatically impacted by the new UAD2 increased data requirements and formatting

Are there opportunities for refinements or additions?

- Pilot the redesign prior to rolling out
- UAD should be aligned to the scope of GSE business and not try to solve all collateral valuation needs
- Alignment to the GSE Charter should be essential
- Independence of the appraisal development should be free from pressure of all parties to the transaction

B2.1 Lenders

How could the Enterprises make additional data available to appraisers while promoting appraiser independence without crowding out other data providers? What additional challenges arise if the enterprises provide data to appraisers?

How could the Enterprises make additional data available to appraisers while promoting appraiser independence without crowding out other data providers? What additional challenges arise if the enterprises provide data to appraisers?

- When UCDP flags the appraiser that the appraisers is drastically different than their peers without sharing the detail is unacceptable
- Providing data with subjectivity removed could be helpful if the data that is being shared is material to the outcome of the final conclusion
- Democratically providing access to UCDP data (appropriately redacted) to the industry would benefit the quality and performance of AVMs, Quality Assurance, and Controls; and reliable market metrics

B2.2 Lenders

How can the Enterprises improve their collateral tools currently available to lenders?

How can the Enterprises improve their collateral tools currently available to lenders?

• There is quite a difference in the outcome between CU and LCA. Being able to utilize the output for quality control requires consistency and improvement. The final ratings detail should be more transparent so that the Lender/Seller can improve the Rep and Warrant coverage when possible

B2.3 Lenders

How do Enterprise appraisal waiver offers differ between Freddie Mac and Fannie Mae? Are both Enterprises equally likely to offer a waiver on a given property? Please elaborate.

How do Enterprise appraisal waiver offers differ between Freddie Mac and Fannie Mae? Are both Enterprises equally likely to offer a waiver on a given property? Please elaborate.

• Lenders who sell to both FNMA and FHLMC find that the GSEs are very inconsistent in what property would or would not receive a waiver.

• While the Policy has not changed, the application of the policy is driven by parameters that are not exposed to the Seller. Further, it is an all or nothing proposition (waiver vs. full appraisal) which eliminates other important collateral risk valuation products. If it the decision for collateral risk was a "cascade" of valuation products, then the overall risk (loan & property characteristics etc...) would allow for more appropriate collateral risk mitigation

• It is unknown if the GSEs have included a market risk parameter to the background analytics as it appears in some cases, waivers are awarded in declining markets which does not appear to be a safe or sound lending practice

• By operating within a "black box", no one is aware of the early indicators in place to protect against losses to protect against negative market changes. This will result in additional losses as seen in the past. A level playing field is essential.

• UAD2 – Seller/Servicer guidelines must be brought forward for constant evaluation of the shared risk of the loan

B2.4 Lenders

How can lenders manipulate automated underwriting systems when seeking an appraisal wavier? For example, lenders changing the loan amount, submitting data changes multiple times, or submitting to both Enterprises and delivering to the one who offers the waiver? How do the Enterprises minimize this manipulation?

How can lenders manipulate automated underwriting systems when seeking an appraisal wavier? For example, lenders changing the loan amount, submitting data changes multiple times, or submitting to both Enterprises and delivering to the one who offers the waiver?

How do the Enterprises minimize this manipulation?

• The GSE should share their concerns regarding manipulation of the system and/or lack of controls to prevent such manipulation if it exists

• Waiver = Speed to close and increased collateral risk. Reduction of the collateral risk should be the topic to be discussed which includes other products that would bridge the gap between NO collateral oversight vs. full scope appraisal.

B2.5 Lenders

What are the challenges associated with quality of service, enforcement and consumer protections related to non-appraiser entities providing property inspection data?

What are the challenges associated with quality of service, enforcement and consumer protections related to non-appraiser entities providing property inspection data?

• Lack of regulatory oversight/licensure, lack of standards, low fees, inconsistent results, third-party management time and expense, lack of accountability in the supply chain, E&O Insurance, reputational risk.

B2.6 Lenders

Is there any data or evidence you could share regarding the performance of alternative appraisal solutions versus traditional appraisals?

Is there any data or evidence you could share regarding the performance of alternative appraisal solutions versus traditional appraisals?

• There is not enough history regarding the loan performance to be able to answer this question

• From a single Lender: Bifurcated appraisals used for HE loans have traditionally resulted in lower values due to the lack of interior inspection. Our experience is that they are typically within 10% and can result in increased cost to bank or borrower due to need for upgrading to a traditional appraisal.

B2.7 Lenders

Should Enterprise type COVID-19 appraisal flexibilities be part of an updated appraisal process to address disasters and other events to lessen market impacts?

Should Enterprise type COVID-19 appraisal flexibilities be part of an updated appraisal process to address disasters and other events to lessen market impacts?

• Only if it includes the full spectrum of valuation products to address multiple levels of collateral risk.

C1.1 Lenders

What do you envision the impact of appraisal process improvements as described in this RFI to be on the appraisal industry? What impact, if any, has increasing use by the Enterprises of alternative appraisal solutions had on the availability and/or quality of traditional appraisals?

What do you envision the impact of appraisal process improvements as described in this RFI to be on the appraisal industry?

• If "appraisal process" is another term for the new URAR form, then the business impact will be one of the most extensive and costly changes in many years. Appraisers, underwriters, all users of valuation services will need to be retrained, internal systems of record and fulfillment retooled, software redeveloped, automated rule engines redesigned, appraisal review forms and processes redesigned, etc.. Unfortunately, the total impact has not been evaluated and based on the GSE published timeline, a cost/benefit analysis does not appear to be in scope

What impact, if any, has increasing use by the Enterprises of alternative appraisal solutions had on the availability and/or quality of traditional appraisals?

• We should not be solving the lack of appraiser capacity with the use of appraisal waivers. The lack of appraiser capacity should be solved by addressing licensing requirements and recruitment. History has taught us that easing standards during times of positive market conditions are never known until the market condition change in a negative direction.

C1.2 Lenders

What would be the impact of appraisal policy and process improvements to the mid or late career appraiser? Do you believe late career appraisers would delay retirement if they could focus on specific valuation services like desktop appraisals? Or alternatively, would late career appraisers cease operations due to technology adoption challenges?

What would be the impact of appraisal policy and process improvements to the mid or late career appraiser? Do you believe late career appraisers would delay retirement if they could focus on specific valuation services like desktop appraisals? Or alternatively, would late career appraisers cease operations due to technology adoption challenges?

- The lack of appraiser capacity should be solved by addressing licensing requirements and recruitment.
- Recent strains on appraisers due to COVID and low interest rates, along with the proposed valuation
- changes and costs, could prove to be overwhelming to late career appraisers, resulting in retirement.
- The cost benefit analysis may determine that the changes are not worth the investment this can apply to both mid career appraiser and late career appraisers

C1.3 Lenders

Do you believe appraisal policy and process improvements would have a positive impact on access to credit, including for rural and underserved markets by providing additional valuation services that serve the needs of these markets?

Do you believe appraisal policy and process improvements would have a positive impact on access to credit, including for rural and underserved markets by providing additional valuation services that serve the needs of these markets?

• The complexity of these assignments should not have reduced collateral risk oversight (lower scope valuation products). These loans are a higher risk to the Lender/Seller. Focus should be on recruiting SMEs to serve the valuation needs for these markets and addressing customary and reasonable fees.

C1.6 Lenders

Do you have any additional feedback on issues and questions raised by this RFI?

Do you have any additional feedback on issues and questions raised by this RFI?

• In terms of policy, the users of valuation services (the industry) need to determine if the valuation process and resulting collateral risk management should be driven by the GSEs or if such oversight should sit with an neutral party that does not have a direct interest or benefit in the actions taken or products developed. Is there simply a "conflict of interest" if the GSEs continue to drive such substantial change in the valuation industry?

• The UAD/Dynamic form project is being marketed as being helpful to the entire industry, however the approach creates ambiguity due to the lack of clarification as the process is truly specific to GSE assignments. Oversight protecting the impartiality and independence of the valuation process is paramount to the serving the public in a safe and sound manner

• The appraisal process starts by the appraiser defining the problem, gathering relevant data, and determining the scope of work that is applicable to the assignment. Unfortunately, the GSE new URAR (consolidated one form fits all property types) does not follow this approach. This one size fits all dynamic form leads the appraiser thru specific data collection and a pre-defined scope of work. Leading the appraisal process in this way creates a lack of independence, forcing the appraiser to follow a certain formula, but not relieving the appraiser of the liability of the pre-defined scope that will ultimately drive the conclusion.

• The new additional discrete data collected by the appraiser is not going to be made available to the industry. This may impact the credibility of the appraisal and overall quality control of the valuation product. Data that is not captured consistently throughout the industry could impact the appraisers ability to appropriate analyze and support the conclusions.

• The GSE will be the beneficiary of this massive data collection effort, not the Lender, Seller, or user of the valuation product. The cost of this data collection effort is passed on to the industry as well as the consumer

• Backward Compatibility Break – The current UAD started Sept 2011 and millions of appraisals were collected. There will be a backwards compatibility break between the old UAD data and new UAD with great impact to the assets and investments in the data to date. All systems utilizing this data will have to be entirely re-tooled (appraisal rule sets, systems of record, software, AVMs, etc...) The business impact and cost will be tremendous without a clear understanding of the ultimate benefit for the industry that will bear

the cost

• The introduction of new technology such as a drone photography or an external measure scanning device will require a tremendous amount of governance control and accountability with financial institutions and regulators increasing operational cost and potential for reputational risk. Will the benefit truly out weigh the cost/risk to implement?

• The GSE and the Lender/Seller have differing accountabilities to different regulators which creates an disparate impact to loan mitigation and regulatory compliance

Valuation Technology

A1.1 Valuation Technology

Is there a need to provide new valuation solutions that address industry identified issues of appraiser capacity, turn-times, training, and rural and high-volume market coverage? What are those potential solutions? What are the risks of these policies and the challenges in implementing them?

Is there a need to provide new valuation solutions that address industry identified issues of: Appraiser capacity, Turn-times, Training, Rural market coverage, High-volume market coverage?

The appraisal industry is in a state of stagnation and has become a bottle neck in the mortgage process, which has experienced the benefits of technological advancements over the past decade that have enabled highly efficient and streamlined mortgage origination. The appraisal industry must evolve to support the needs of mortgage industry or risk becoming obsolete. However, present collateral policy restricts the appraisal industry from leveraging emerging technologies and processes to allow it to evolve with the greater mortgage industry. We must aggressively challenge the validity of existing policy and seek thoughtful change to leverage new capabilities of property technology (prop-tech), Geo-spatial data (GIS), and automation through artificial intelligence (computer vision, machine learning, and natural language processing) in the appraisal manufacturing process.

The enterprises have the power to accelerate or hinder adoption of these advancements through thoughtful policy change. Test and learns are important to generate sufficient data to inform effective collateral policy modernization. However, recent test and learn activities conducted by the GSEs were designed in silos by each GSE independently. These tests impose restrictive rules and policies based on broad assumptions and historic practices or results, instead of being designed around the innovations they were designed to test. Furthermore, with the tests run independently by each GSE, the loans originated using the technology were not fungible, reducing participation by originators to a level that resulted in too few loans to generate sufficient data. Last, the cost of these tests rested primarily on the primary market participants, who were required to redesign their innovations to meet the GSE imposed rules, without investment by the GSEs.

We recommend continued testing of new technologies and processes to rapidly accelerate policy modernization to address industry challenges. However, testing should be conducted jointly with a focus on the merits of the technology. To reduce potential collateral risk exposure in testing, the sample set of originations should come from the tranche of low-risk originations currently receiving appraisal waivers by the GSEs today. Furthermore, testing should not be limited to target GSE customers to win business for the GSE but should be offered on all eligible loans to ensure expedient testing and decisions. Lastly, the GSEs should limit their influence on the innovation design until testing is complete to ensure unbiased test results and create greater incentive for innovators to bring their solutions to the table.

What are those potential solutions?

There are a number of valid solutions that include technology and process innovations. There is property technology to generate precise, consistent, and objective property data records... Technology to assist the appraiser in analyzing relevant property data and understanding it for better and quicker decision making... Technology to analyze vast quantities of data to provide the appraiser with insights that are otherwise impossible to know... Process enhancements that present valid approaches to breaking down the tasks of the appraiser's traditional workflow and remove them from non-value-added tasks that can be performed through automation or third-parties; allowing the appraiser to focus on their core competency, valuation analysis.

What are the risks of these policies?

Any new technology or process considered by the GSEs should have the minimum requirement of having been designed to not only introduce new manufacturing efficiencies, but also improve collateral risk management. Target efficiencies and risk reduction of any proposed solution should be well defined and measurable. Then each solution should be tested to validate its merits and identify any potential systemic risk it may present. Specifically, the risks of separating the valuation analysis from acquiring the property characteristics data can be minimal because technology-wise, property data can be collected digitally and verified almost instantly from many varied sources, ensuring quality, precision, and objectivity. This data can then be ingested by systems that Interpret the data and provide the appraiser with actionable information, increasing the speed of the analysis and final valuation.

The challenges in implementing them?

The technology and data collection innovations need to be developed and proven in valid tests designed by qualified and independent testers. Testing should be conducted in joint cooperation by both GSEs, with input from secondary market participants and mortgage insurers who ultimately absorb the risk. Many solutions have already been developed and are ready for, or presently in testing.

As these solutions are new, scalability will be a short-term challenge as service providers work through the logistics and challenges of rolling out any new solution. However, several existing providers of real-estate appraisal services have had their eyes on the ball and are presently developing networks for test and learns. As with any industry, change in the appraisal industry is often met with resistance and protectionist sentiments of veterans of the industry. These objections should be considered with a grain of salt as it is exactly this attitude that has resulted in the present state.

A1.2 Valuation Technology

Are there opportunities for process improvements that allow non-traditional valuation services (inspection-only, desktop, exterior-only) to augment traditional appraisals? Please elaborate on the risks, challenges and benefits. Separately, are there opportunities to improve traditional appraisals to mitigate problems and concerns that have been observed to date?

Are there opportunities for process improvements that allow non-traditional valuation services (inspectiononly, desktop, exterior-only) to augment traditional appraisals?

Regarding process, the greatest opportunity presenting itself in the current environment is decoupling the site visit of the traditional appraisal from the valuation analysis. Leveraging prop-tech and third-party providers to standardize acquisition of the property and market characteristics data used by appraisers increases the capacity of the existing appraisal supply chain by eliminating non-value added activities from the appraiser's workload. We believe this single process flexibility enables safe and sound Inspection-only and desktop solutions that enhance the collateral risk profile of the loan for downstream stakeholders because they ensure a current view of the collateral at the time of origination.

Please elaborate on the risks,

Data security and consumer privacy are the primary risks. In the traditional appraisal process the appraiser visits the property and develops their opinion of value based on their first-hand experience and data gathered from other sources. In a process that relies on property data provided by third parties, the data must be much richer to ensure transparency and sufficient information for a credible opinion. This includes full 360 degree imagery

coupled with specific data elements entered by data collectors, data derived from computer vision, images and global information systems, and modeled data to generate artifacts such as maps, floorplans, and living area calculations. To foster the trust of the appraisal community and downstream stakeholders, this data must be immutable at the source. Further, to ensure viability of these solutions, the innovators must be able to monetize the solutions they develop, which requires data rights to be preserved and trackable.

Last, to ensure scalability of these solutions data capture technology must subscribe to a common standard, including a unique property identifier, data standards, image and image metadata standards, and standards for floorplan generation and area calculations. Standardization ensures fungibility of the property data across all appraisal manufacturing and underwriting technologies throughout the mortgage ecosystem. It stands to reason that these solutions should adhere to and maintain parity with existing valuation services specifications derived from the MISMO data standards Reference Model. An association of property data collection service providers and stakeholders should be established to develop and maintain these standards by consensus and set up a solution such as distributed ledger to manage standards adherence, security, and distribution. Distributed Ledger (Blockchain) is the most feasible solution capable of ensuring immutability, tracking data rights, tracking data transaction and standards enforcement. It has been successfully deployed in cryptocurrency to protect the investments of currency owners and in health records to protect patient privacy.

The challenges?

The challenge in improving the process is first and foremost ensuring the GSE policies are aligned and in sync with each other. Policies form the foundation for any meaningful improvement change. If not in sync, the lenders, technology and process providers face unnecessary burdens. The key considerations should be to align policies, compliance and operational controls which in turn, will have a direct impact on the overall cost and time to implement the improvements and ultimately on the success of the improvement. Because at this time, the process improvements do not exist, additional consideration needs to be given to deployment speed and scalability. For instance, should the change be deployed incrementally, or can it be rolled out nationally all at once? These are some of the considerations, but as stated above, the main challenge is having an alignment of policies by the enterprises.

The benefits?

Removing the appraiser from the field work increases appraiser capacity exponentially and resolves scheduling challenges that present the bulk of delays and cycle-time issues in the traditional appraisal process. Further, leveraging third parties and prop-tech to gather property characteristics data, promotes consistency, objectivity, and certainty. In fact, some technologies will even support homeowner involvement and use of property data captured at the time of listing in the appraisal process; both of which would greatly reduce cycle-times.

Separately, are there opportunities to improve traditional appraisals to mitigate problems and concerns that have been observed to date?

Yes, simple process-oriented initiatives such as itemizing the lender engagement letter so items are digital and itemized for easier review and verification of completion. Another is a standardized digital Appraisal Order format to eliminate retying and errors. Last, enable specific elements of Collateral Underwriter and Loan Collateral Adviser messaging to be deployed to the appraiser within their appraisal manufacturing software. For example, integration between appraisal forms software and APIs at both GSEs could enable the appraisal to be submitted to CU and LCA simultaneously prior to UCDP submission to retrieve data validation messages and limited comp selection messaging (short of disclosing specific comps). These improvements empower the appraiser to address potential stakeholder concerns within their manufacturing process as a pre-submission check to help reduce post-submission revision requests which is another primary contributor to capacity and cycle-time challenges.

A1.6 Valuation Technology

Do the objectives as outlined for the UAD update and forms redesign meet the current and future needs of the mortgage industry? Are there opportunities for refinements or additions?

Do the objectives as outlined for the UAD update and forms redesign meet the current and future needs of the Mortgage industry? Are there opportunities for refinements or additions?

We believe the existing set of uniform appraisal forms is outdated and contributes to the bulk of the quality concerns commonly communicated by the enterprises. We believe the decoupling appraisal data entry and analysis from appraisal reporting is a key step to begin to successfully transition the residential appraiser mindset out of the form-filler mentality that perpetuates low-quality valuation products. We also believe the existing UAD is insufficient and outdated. Unfortunately, we do not believe the current UAD project addresses these challenges, it fails to future-proof appraisal data standardization, which should continuously evolve with technology used in collateral risk management and should be aligned with other users of property data and appraisals outside conventional lending to remove the challenges of maintaining multiple standards.

Obviously, for new technology in appraisal manufacturing to be effective, it must have a foundation of credible, unbiased, standardized, and trustworthy data. MISMO is the industry accepted keeper of the data standards for the Mortgage Industry, the enterprises have been absent from ongoing work related to appraisal to keep MISMO property and valuation data current since the initial UAD mandate, which used the sunsetted Valuation Response 2.6 Errata 1 DTD to form the basis of an extended, proprietary version known as 2.6GSE. Now, UAD is undergoing its first update in a decade, which will result in a high-cost, industry wide disruption to deploy the new UAD standard, which is different, but not meaningfully different or better than the existent MISMO 2.6 structure, but causing massive changes to the MISMO Reference Model (currently at version 3.5). Further, the GSEs committed to moving from 2.6 onto the 3.x reference model with its UAD specifications when the MISMO workgroup agreed to support the initial roll-out on the outdated version.

All UMDP projects have forced MISMO to update its base to meet the latest desires of the U-Project in focus. The changes being requested for UAD 2 to the MISMO Reference Model is so massive, that all the other UMDP specifications will have to remain on separate models. This means lenders who have to work with ULDD, UCD, ULAD and now UAD2 have to map disparate specifications. Futher, many of these changes are cosmetic in nature and do not provide a meaningful improvement to either the model or the appraisal report.

Instead of a wholesale redesign of the appraisal reporting forms, the enterprises could move the current UAD (v2.6GSE) onto the current MISMO Reference model (which as full reconciled to UAD 1 with MISMO version 3.3) and add to the specification rather than building new process from the ground up. This would drastically reduce the re-work efforts of all parties involved in producing, transmitting and reading the appraisal dataset. Furthermore, a pattern of ongoing incremental improvements in cooperation with the MISMO Property And Valuation Services Community of Practice stakeholder group would help to reduce the burden on the industry and ensure appraisal data standards maintain parity with the other UMDP models and keep up with advancements of the technologies that support it. This would also enable the enterprises to more readily take advantage of new and emerging capabilities that are developed to the current MISMO Reference Model.

B2.1 Valuation Technology

How could the Enterprises make additional data available to appraisers while promoting appraiser independence without crowding out other data providers? What additional challenges arise if the enterprises provide data to appraisers?

How could the Enterprises make additional data available to appraisers while promoting appraiser independence?

Through UCDP, the Enterprises have amassed an unparalleled database of standardized property data and curated specific data sets used in Collateral Underwriter (CU) and Loan Collateral Advisor (LCA). These automated collateral underwriting systems are used to identify collateral risk during the loan origination cycle and have been one of the greatest technology advancements in collateral risk management in the last decade. However, these tools are deployed within lender underwriting, which is the appraisal's last stop in the manufacturing process. The typical appraisal used in conventional lending is ordered through an Appraisal Management Company (AMC) with an implied quality control responsibility. Each appraisal is subject to revision requests in the AMC process before it ever gets to the lender, who then doubles back with new quality control efforts powered by CU and LCA. In short, each appraisal is subject to multiple quality control stops. Each requiring the appraiser to stop working on new appraisal assignments to revisit past assignments multiple times. This pattern is one of the key contributors to appraisal delays and capacity constraints. On average, appraisers are forced to revisit over half of completed appraisals for revisions. Providing the curated data used in CU and LCA to the industry within the manufacturing process will help to change this pattern.

We would encourage the Enterprises to make their curated property data sets available by API to certified entities such as data aggregators and other entities in the manufacturing chain who have the capability to deploy it in appraisal development software, appraisal quality control, and collateral risk underwriting.

What additional challenges arise if the enterprises provide data to appraisers?

The data should be shared, but not directly to appraisers and not in raw form. There need to be standards governing the data in terms of privacy and distribution. Appraiser independence needs to be considered in how and when the data is distributed. Data distributors should be certified. There are existing channels for distributing data, certifying these channels would cause the least amount of disruption and by default ensure appraiser independence. From the perspective of the appraiser, this data should be considered as a companion dataset to MLS data and public record data providing the appraiser with information from different perspectives so as to make the best decisions regarding property valuation.

Without crowding out other data providers?

Existing data providers supply public records for all properties and all MLS listings and sales. The GSE data sets are only a subset of this data. Data aggregators, AMCs and manufacturing software providers who license the GSE's data should be required by contractual agreement to only use the GSE data to augment MLS and/or public records in their proprietary solutions.

B2.6 Valuation Technology

Is there any data or evidence you could share regarding the performance of alternative appraisal solutions versus traditional appraisals?

Is there any data or evidence you could share regarding the performance of alternative appraisal solutions versus traditional appraisals?

The technology group does not have any hard evidence to answer this question reliably.

C1.1 Valuation Technology

What do you envision the impact of appraisal process improvements as described in this RFI to be on the appraisal industry? What impact, if any, has increasing use by the Enterprises of alternative appraisal solutions had on the availability and/or quality of traditional appraisals?

What do you envision the impact of appraisal process improvements as described in this RFI to be on the appraisal industry?

Standardized property data collection by third parties has the potential to reduce subjectivity and bias, while improving transparency and immutability of the data, especially as it relates to image and sensor based technologies. Furthermore, removing appraisers from the field work increases capacity by at least double, especially as manufacturing software and automated analysis tools gain traction and improve efficiency in report generation.

What impact, if any, has increasing use by the Enterprises of alternative appraisal solutions had on the availability and/or quality of traditional appraisals?

The use of waivers is an example of an alternative collateral solution that has had a negative impact on the appraisal profession by discouraging new entrants into the appraisal profession. They are considered a relief value on demand, but their very use curtails new solutions from being developed by the market. Private sector innovation occurs when the demand exists and is allowed to meet that demand. Waivers and restrictions by the GSEs on alternative valuations have curtailed true, free market innovation to occur. If the use of waivers continues at its current level even when demand for valuations goes down, the effect on the appraisal profession will be significant and detrimental.

C1.4 Valuation Technology

Is there discrimination in current collateral valuation practices? If you believe there is discrimination, describe the impact. Please provide any relevant data or analyses to support your position. Conversely, are there concerns that alternative or automated solutions could have a discriminatory impact?

Is there discrimination in current collateral valuation practices?

While ensuring public trust is fundamental to the Uniform Standards of Professional Appraisal Practice which guides the conduct and practice all professional appraisers, there have been very recent and broadly discussed incidents of discrimination that challenge the credibility of traditional appraisal process and practices. As regrettable as the incidents are, they help to highlight the need for change and present further support for improving the valuation process by eliminating the appraiser's direct contact with parties to the transaction and introducing third-party data collectors with technology that captures only the relevant facts in a very transparent and objective way.

Conversely, are there concerns that alternative or automated solutions could have a discriminatory impact?

To the contrary. Removing the appraiser from the site visit has the potential to eliminate discriminatory bias when used for determining/rating/comparing factual or characteristic features of a property. Future concerns revolve around the use of AI and Deep Learning technology to provide subjective results such as quality and condition ratings of the property. These models are only as good as the materials that were used to train them. It

has been shown that the models can exhibit bias because of the bias in the unintentional bias in the materials used in training. This technology should not be considered as a substitute for human analysis, but as an assistant to the appraiser whose judgment and experience should be overriding consideration.

C1.6 Valuation Technology

Do you have any additional feedback on issues and questions raised by this RFI?

Do you have any additional feedback on issues and questions raised by this RFI?

In answering the above questions, the Technology Workgroup considered the impact of these new technologies on the inspection and valuation processes.

New Technology on the Horizon

- 1. Inspection & Process Technology
 - 1. Lidar, AI object recognition, augmented reality
 - 2. Blockchain to ensure safe data distribution, immutability and consumer privacy
 - 3. 3D Scan with 360° imagery
 - 4. National network of specialized inspectors/operators/data collectors
 - 5. Homeowner/borrower becomes part of the process
- 2. Appraisal Manufacturing Technology
 - 1. Appraiser Driven Artificial Intelligence (AI) and Natural Language Processing (NPL)
 - 2. cloud based, team/collaborative approach
 - 3. 2-day to same-day valuations
- 3. Data Access & Interpretation Technology
 - 1. Cloud based/Open APIs
 - 1. real-time Collateral Underwriter/Loan Collateral Advisor powered automated underwriting at the appraiser's desktop
 - 2. Al conversion of data to information
 - 1. Rich open source geospatial data inputs
- 4. All technologies
 - 1. Trend toward closing the time and distance gap

2. Enforce scalability by creating elasticity in the supply chain to handle peak loads; just in time inventory.

- 3. Eliminate subjectivity and bias in the valuation.
- 4. GIS and standardized unique Property Identifier algorithm