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## Rate Me: Risk Assessment Drones and the Resurrection of Discriminatory Insurance Practices

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# Rate Me: Risk Assessment Drones and the Resurrection of Discriminatory Insurance Practices

Lucas M. Barta\*

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### *I. Introduction*

Consider Ethel Baxter, an elderly woman who has never missed so much as a car payment in her decades of credit history. Her claims record is essentially spotless—a dream policyholder for insurers. She lives in northern California, owns her own home, and has regular income from social security and a part-time job. Now imagine the conversation when her insurance provider tells Ethel that she is no longer eligible for property insurance because her home is located near wild brush that represents a fire hazard. Ethel has never heard of the brush impacting her policy before, nor did she have any meeting or conversation with a claims adjuster about it at any point. How could this have happened to such an outstanding policyholder like herself? Why didn't she have an opportunity to be heard, or at least understand the process? How did the insurance company decide her property was suddenly too high of a risk?

What if the decision wasn't even made by a real person? Ethel's insurer has just received an exemption to fly drones over

insured properties for “risk assessment” and property surveillance. What if Ethel was evaluated by something without the ability to see beyond still-shots, numbers, and analytical formulas; something programmed to analyze and predict the future of her property without so much as a blink in her direction?

This is the danger that people like Ethel face with the rise of commercial insurance drones in risk assessment and claims adjustment.<sup>1</sup> Insurance companies are at the forefront of a movement by commercial entities to take advantage of evolving drone technology.<sup>2</sup> These insurers envision a world where drones will replace human agents in field operations across the industry, gathering, analyzing, and sharing data with a ruthless efficiency that the public has never seen.<sup>3</sup> In this world, human agents will be necessary only to rubber-stamp the recommendations of a drone’s analysis of a property.<sup>4</sup> Proponents of drone integration laud their potential to offer crucial assistance in claims and assessment situations where a human agent would encounter danger and difficulty.<sup>5</sup> Lost in the revelry, however, is an equally dangerous issue: will these drones increase the likelihood of unfairly discriminatory insurance practices, and can that effect be stopped?

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1. See Donan, *infra* note 106 (“UAVs eventually will enjoy widespread adoption throughout [the insurance] industry, and one day in the foreseeable future they will be commonplace.”).

2. See *infra* notes 78–81 and accompanying text (giving an estimate of operational commercial drones expected by 2020, and discussing the role of insurance companies in the integration process).

3. See Keven Moore, *Drones May Be Coming To a Fender-Bender or a Storm Near You*, KYFORWARD (Apr. 1, 2014), <http://www.kyforward.com/keven-moore-on-insurance-drones-may-be-coming-to-a-fender-bender-or-storm-near-you/> (last visited Oct. 1, 2016) (“In the future, underwriters can send out drones to assess square footage of the building, the condition of a building’s exterior as they can provide great views of roofing, siding, windows, perimeter fencing, lighting exterior hazards, neighboring exposures in great detail.”) (on file with the Washington and Lee Law Review).

4. See *id.* (describing the various uses for insurance drones in claims adjustment and underwriting, and envisioning a system where insurance agents rely on the data drones gather to process a claim off-site).

5. See *id.* (praising the versatility of drones and their potential to replace insurance agents in common, hazardous situations presented by the industry, such as roof damage assessment, fire and disaster assessment, and catastrophe surveys).

This potential for unfairly discriminatory insurance practices also implicates constitutional issues—namely, a potential clash with the Disparate Impact Rule.<sup>6</sup> The concept of disparate impact reflects the federal government’s concern for the Fourteenth Amendment’s Equal Protection Clause and facially discriminatory practices.<sup>7</sup> The operation of the Rule legitimizes an Equal Protection claim for “protected classes” who experience a discriminatory impact from an insurance practice that is technically legal.<sup>8</sup> Although its application has been met with some resistance, Congress has specifically recognized the Rule’s importance in prohibiting discriminatory insurance practices in the housing market.<sup>9</sup> The integration of risk assessment drones, however, threatens to reanimate these issues with a vengeance.<sup>10</sup> If insurers’ usage of drones is not appropriately regulated, the potential for conceptually legal insurance practices with disparate, discriminatory consequences becomes an unchecked reality.<sup>11</sup>

What do we tell Ethel as she fights for a fair insurance rating against an enemy who doesn’t talk back? How will we assure those who land in a risk assessment drone’s sights that they are being fairly evaluated, and that the data these drones are collecting is being properly used and protected? *Can* we even promise those protections? The reality of what the public faces here is

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6. Discriminatory Effect Prohibited, 24 C.F.R. § 100.500 (2015).

7. See *infra* notes 47–49 and accompanying text (outlining the concept of disparate impact and its development through Supreme Court jurisprudence as a response to Equal Protection concerns in discrimination claims).

8. See § 100.500 (“Liability may be established under the Fair Housing Act based on a practice’s discriminatory effect . . . even if the practice was not motivated by a discriminatory intent.”).

9. See *infra* notes 53–57 and accompanying text (discussing the codification, statutory structure, and requirements of the modern version of the Disparate Impact Rule as applied in concert with the Fair Housing Act).

10. See Tom Karol, *Unmanned Aerial Systems/Drones—Regulation, Liability, and Insurance Requirements*, NAT’L ASS’N MUTUAL INS. COMPANIES 6–7 (2015), [http://www.namic.org/pdf/15memberadvisory/150226\\_drones.pdf](http://www.namic.org/pdf/15memberadvisory/150226_drones.pdf) (listing insurers’ intended uses for commercial drones in the risk assessment and claims adjustment fields, discussing potential liabilities from data collection and scanning, and large-scale impacts on subjects of drone operations).

11. See *id.* at 14 (warning of the “lack of regulatory specification” with regard to insurers’ evolving usage of commercial drones, and suggesting that insurers themselves must “play a role in developing standards of good practice” for such drone operations if they are to avoid liability and damaging impacts to the public).

inescapable. Discriminatory insurance practices like redlining have once again become tangible threats because of this robotic and impersonal risk assessment and claims adjustment process.<sup>12</sup> If the regulatory landscape does not adapt to these new dangers with deliberate speed, any hope for a clear, consistent, or even adequate response to this threat is left in shambles.<sup>13</sup>

Part II of this Note outlines the development of both unfair discrimination and disparate impact jurisprudence within the insurance industry and where it stands today.<sup>14</sup> Part III offers a primer on the integration of commercial drones into the insurance industry and their capabilities, followed by a brief introduction to the current regulatory landscape surrounding commercial drone usage.<sup>15</sup> Subsequently, Part IV discusses the nexus between risk assessment and claims adjustment drones and a potential rise in discriminatory insurance practices.<sup>16</sup> Finally, Part V exposes the inadequacies of current regulatory efforts towards these drones and discusses how best to identify and respond to potential discriminatory practices.<sup>17</sup> Part V also proposes targeted solutions for identified risks in the form of a cohesive regulatory scheme, and ultimately explores which entities, if any, could best implement such a proposal.<sup>18</sup>

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12. See *infra* notes 130–140 and accompanying text (examining modern insurance tactics that utilize evolving technology to revive discriminatory redlining and other discriminatory insurance practices).

13. See Karol, *supra* note 10, at 14 (“There will always be risks in the commercial use of drones, and property/ casualty insurance will be a critical consideration . . . but responsible insurance coverage for this emerging area will require more development of federal, state, and local regulations . . .”).

14. *Infra* Part II.

15. *Infra* Part III.

16. *Infra* Part IV.

17. See *infra* Part V.A–B (discussing the inadequacies of present commercial drone regulations and proposing a methodology for identifying potential risks and developing regulatory countermeasures to respond to them).

18. See *infra* Part V.C (proposing targeted regulatory countermeasures to combat unfairly discriminatory insurance practices resulting from commercial drone integration, and exploring suitable entities for implementation of those solutions).

## II. Development of Current Unfair Discrimination and Disparate Impact Jurisprudence

### A. Unfairly Discriminatory Insurance Practices

Understanding unfairly discriminatory insurance practices and the development of the law behind them is critical in exploring the correlation between these practices and risk assessment drones. Assessing and rating the risks inherent to a potential subject of insurance is a central element of an insurer's formula.<sup>19</sup> Consequently, the need for guidance on the appropriate methods for this assessment cannot be understated.<sup>20</sup>

"The standard rating law holds that rates shall not be 'excessive, inadequate, or unfairly discriminatory.'"<sup>21</sup> "Unfair discrimination, as the term is employed by the Insurance Code, means discrimination among insureds of the same class based upon something other than actuarial risk."<sup>22</sup> Facially, the law seems to provide a relatively straightforward starting point for evaluating discriminatory insurance practices.<sup>23</sup> Practically, this is merely a cliff from which most analyses plunge into chaos. In particular, two aspects of this mystifying jurisprudence are of interest to this Note: the multitude of subjective tests that courts

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19. See Ronen Avraham et al., *Understanding Insurance Anti-Discrimination Laws* 1 (Law & Econ. Working Papers, Paper No. 52, 2013), [http://repository.law.umich.edu/cgi/viewcontent.cgi?article=1163&context=law\\_econ\\_current](http://repository.law.umich.edu/cgi/viewcontent.cgi?article=1163&context=law_econ_current) ("Insurers attempt to segregate insureds into separate risk pools based on their differences in risk profiles, first, so that they can charge different premiums to the different groups based on their risk and, second, to incentivize risk reduction by insureds.").

20. See *id.* at 2 (stating that, despite the "valuable social function" that insurers can provide through discrimination, there are "limits on the discrimination that insurers are permitted to engage in").

21. 2 NATHANIEL S. SHAPO, NEW APPLEMAN ON INSURANCE LAW LIBRARY EDITION § 11.03(1)(a) (2013). For examples of statutes that reflect the "excessive, inadequate, or unfairly discriminatory" standard, see generally COLO. REV. STAT. § 10-4-401(1) (2015); D.C. CODE § 31-2703(A) (2015).

22. SHAPO, *supra* note 21 § 11.03.

23. See *id.* ("The laws pertaining to risk discrimination are evaluated under terms of art: fair discrimination and unfair discrimination. It is well established that the dividing line is determined by actuarial justification.").

use for determining whether discrimination is “unfair”<sup>24</sup> and the rise—and possible fall—of the Disparate Impact Rule.<sup>25</sup>

Some discrimination in insurance practices is acceptable—if not unavoidable—due to the nature of weighing risk against coverage, but there must be a limit.<sup>26</sup> State courts have struggled, however, with various subjective patterns of analysis for determining whether a particular insurance practice is “unfairly” discriminatory.<sup>27</sup> State statutes are often the primary guidance for courts in this evaluation, yet this guidance has led to even greater inconsistency.<sup>28</sup>

In *Hartford Accounting and Indemnification Co. v. Insurance Commissioner of the Commonwealth*,<sup>29</sup> the Supreme Court of Pennsylvania held that it was within its power to enforce the state legislature’s prohibition on “unfairly discriminatory” insurance ratings.<sup>30</sup> Yet, the court acknowledged that the relevant statute did not define the phrase and, thus, took the responsibility of defining it in the context of the facts before it.<sup>31</sup> Ultimately, the court rejected a narrow, technical interpretation of “fairness”<sup>32</sup> and

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24. See *infra* notes 27–43 and accompanying text (comparing subjective state court analyses of “fairness” and describing the inconsistencies in state anti-discrimination law).

25. See *infra* notes 45–63 and accompanying text (detailing the genesis, evolution, and application of the Disparate Impact Rule).

26. See Avraham, *supra* note 19, at 2 (“Insurers attempt to classify insureds into separate risk pools based on differences in their risk profiles. Thus, insurers openly discriminate among individuals based on observable characteristics.”).

27. See *id.* at 1 (offering an overview of the Article’s discussion, including the lack of federal regulation and the reliance on various state schemes for evaluating discriminatory practices in the insurance field).

28. See *id.* at 3 (“[D]iscrimination by insurers in the underwriting process is largely unregulated at the federal level, leaving the states as the regulators of insurer discrimination.”).

29. 482 A.2d 542 (Pa. 1984).

30. See *id.* at 546 (“[T]he legislature has directly prohibited insurers from making ‘unfairly discriminatory’ rates, and has entrusted enforcement of that prohibition . . . to the courts.”).

31. See *id.* (“The basic issue in this appeal is the proper interpretation of the phrase ‘unfairly discriminatory’ as employed in section 3(d) of the Rate Act, 40 P.S. § 1183(d) (1971). That phrase is not defined in the Rate Act itself.”).

32. See *id.* at 547 (“[S]ection 3(d) manifests separate legislative objectives which represent the recognition that a rate may be justified by the actuarial data offered in its support, yet unfair in its underlying assumptions and its application to the individual.”).

instead held that fairness represented a legislative concept beyond what was required for a mere actuarial justification.<sup>33</sup> This prompted “public policy considerations,” including an examination of legislative intent behind provisions of Pennsylvania’s constitution and consideration of subjective factors such as “social acceptability.”<sup>34</sup> Ultimately, the court stopped short of ruling solely on public policy. Instead, the court linked a broader definition of “unfair discrimination” to the state’s constitution.<sup>35</sup> Despite the court’s ruling, however, it cannot be denied that subjective factors colored the *Hartford* court’s interpretation of the relevant statutory direction through the consideration of the state’s “established public policy.”<sup>36</sup>

Compare the *Hartford* ruling to the Oregon Court of Appeals decision in *Lemma Wine Co. v. National Council on Compensation Insurance*.<sup>37</sup> In *Lemma*, the court took a narrower route to determine the meaning of “unfairly discriminatory” thanks to Oregon’s more specific statutory language.<sup>38</sup> Where the

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33. *See id.* (“[T]he ‘fairness’ of rates must be recognized as a legislative concern distinct from and transcending the need for sound actuarial justification.”).

34. *See id.* at 547–49 (discussing various public policies relating to equal protection and discrimination, holding that public policy considerations “require more adequate justification for rating factors than simple statistical correlation with loss,” and recommending the consideration of criteria such as causality, reliability, and social acceptability in judging the “reasonableness of a classification system”).

35. The court read gender-based discrimination as “unfair” based on its interpretation of the state legislature’s intent in drafting the document. *See id.* at 549 (ruling that, while the court did not affirmatively recognize the power of the state commissioner to “implement the public policy of [Pennsylvania] in the absence of legislative direction,” considerations of the legislature’s intent and relevant social and political factors necessitated a broad definition of “unfair” discrimination).

36. *See id.* at 549 (upholding the Commissioner’s ruling that the rating classification’s sex-based discrimination was “contrary to established public policy” and was an appropriate exercise of his power in determining the fairness of a discriminatory insurance practice).

37. *See* 95 P.3d 238, 240 (Or. Ct. App. 2004) (evaluating an allegedly unfair discrimination in rating assessment in the application of a worker’s compensation ratings exception to various employees, and stating that the question presented was “whether some of employer’s workers should be subject to a standard exception”).

38. *See id.* at 243 (citing OAR 836–042–0025(3), which provides that “[p]remiums are unfairly discriminatory if differentials between insureds fail to

Pennsylvania court refuted a technical definition of fairness, the *Lemma* court embraced it, focusing on statistical differentials and whether they were reasonably reflected in ratings.<sup>39</sup> Even so, the Oregon statute's reliance on a "reasonable reflection" standard still leaves courts holding the bag by placing yet another subjective evaluation on their shoulders.<sup>40</sup>

The *Hartford* and *Lemma* holdings are just two examples of the inherent difficulties states face in evaluating "unfair discrimination." States are forced to accept this burden in large part due to the dearth of applicable federal laws.<sup>41</sup> This in turn has led to the large and inconsistent existing pool of state risk classification laws.<sup>42</sup> For example, eighteen states currently have no restrictions against the consideration of race in property and casualty insurance risk classification.<sup>43</sup> The inconsistency in these statutes with regard to both the characteristics they consider and the jurisdictions in which they reside set a dangerous stage for the courts that rely on them.<sup>44</sup>

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*reasonably reflect* the differences in expected losses and expenses to the insurer attributable to the insureds" (emphasis added)).

39. *See id.* (describing OAR 836-042-0025(3)'s exceptions to an unfair discrimination classification where statistical differences used in the rating scheme can be "attributed to the insureds" and those differences are "reasonably reflected" by the rating plan or system at issue).

40. *See id.* (balancing the ultimate decision of whether to apply a statutory exception on whether or not "reasonableness" could be shown and failing to define "reasonableness" in the context of the statute).

41. *See Avraham, supra* note 19, at 3 (discussing that, outside of four recent federal statutes, "there are no federal laws expressly forbidding insurers from engaging in any form of discrimination in the underwriting process").

42. *See id.* at 4-5 (discussing the "conventional wisdom" among insurance scholars (scholars encompasses teachers) in describing characteristics which were assumed to be prohibited from consideration in risk classification by all states, and discrediting those assumptions through contrary statistical evidence).

43. *See id.* at 5 (listing the number of states that do not restrict the consideration of race as a risk classification factor for different insurance sectors such as health, life, automobile, and property insurance). "As all this suggests, affirmative bans of insurer discrimination on the basis of potentially suspect policyholder traits are quite rare." *Id.*

44. *See id.* at 46 ("[T]he precise rules that govern the line between permissible and impermissible discrimination [have] been almost entirely ignored, in large part because of the complexity and opacity of state law on the topic.").

### B. The Disparate Impact Rule

One of the rare federal regimes to address discriminatory insurance practices specifically is the Disparate Impact Rule (the Rule).<sup>45</sup> The Rule represents the federal government's desire to create a consistent standard for applying the Fair Housing Act (FHA) to discrimination claims brought against facially neutral practices.<sup>46</sup> It allows a plaintiff struggling or unable to prove the existence of discriminatory intent to earn a favorable judgment nonetheless.<sup>47</sup>

The Rule's conception traces back to seminal Supreme Court equal protection decisions, including *Village of Arlington Heights v. Metropolitan Housing Development Corp.*<sup>48</sup> and *Washington v. Davis*.<sup>49</sup> In both cases, the Court eventually rejected the Rule (then referred to as "disproportionate impact") as standalone grounds to prove a violation of the Fourteenth Amendment's Equal Protection Clause.<sup>50</sup> The Court laid the groundwork for the Rule's evolution, however, in its discussion of claims under Title VII of 42 U.S.C. § 1981,<sup>51</sup> arguing that the consideration of such an impact,

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45. See Michael J. Miller, *Disparate Impact and Unfairly Discriminatory Insurance Rates*, CASUALTY ACTUARIAL SOC'Y E-FORUM 276, 281 (2009), <http://www.casact.org/pubs/forum/09wforum/miller.pdf> (summarizing courts' definitions of disparate impact discrimination and subjective methods of analysis used to define what disparate impact practices may be considered fairly or unfairly discriminatory).

46. See Implementation of the Fair Housing Act's Discriminatory Effects Standard, 78 Fed. Reg. 11, 460 (Feb. 15, 2013) ("This rule serves the need described above by establishing a consistent standard for assessing claims that a facially neutral practice violates the Fair Housing Act and by incorporating that standard in HUD's existing Fair Housing Act regulations at 24 CFR 100.500.").

47. See Discriminatory Effect Prohibited, 24 C.F.R. § 100.500 (2015) ("Liability may be established under the Fair Housing Act based on a practice's discriminatory effect, as defined in paragraph (a) of this section, even if the practice was not motivated by a discriminatory intent.").

48. 429 U.S. 252 (1977).

49. 426 U.S. 229 (1976).

50. See *Village*, 429 U.S. at 264–65 ("[O]fficial action will not be held unconstitutional solely because it results in a racially disproportionate impact."); *Davis*, 426 U.S. at 238–39 (asserting that the Court has never held the constitutional standard for adjudicating claims of racial discrimination to be focused solely on a "racially differential impact" and declining to do so in the case at issue).

51. 42 U.S.C. § 1981 (2012).

although not controlling, was “not irrelevant.”<sup>52</sup> This treatment of disproportionate impact, despite the outcomes of *Village* and *Davis*, legitimized the concept as a potential tool in discrimination-based claims.

In 2013, the U.S. Department of Housing and Urban Development (HUD) issued a notice of final rulemaking allowing the Rule’s application to insurance practices through the FHA.<sup>53</sup> The Code of Federal Regulations<sup>54</sup> defines discriminatory effects sufficient to trigger the Rule,<sup>55</sup> describes the burdens required for its application,<sup>56</sup> and offers defendants a chance to preempt its application through justification.<sup>57</sup>

The basic purpose of the Rule’s application to insurance is to prohibit insurance practices related to housing that “have an unjustified disparate impact on protected classes.”<sup>58</sup> For example, in *Nationwide Mutual Insurance Co. v. Cisneros*,<sup>59</sup> the U.S. Court of Appeals for the Sixth Circuit upheld a practical application of the Rule to a disfavored insurance practice known as “redlining.”<sup>60</sup>

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52. *See Village*, 429 U.S. at 265 (citing *Davis* in a discussion of disproportionate impact as “not irrelevant” but also not controlling in a finding of invidious racial discrimination); *Davis*, 426 U.S. at 242, 246–47 (holding that “disproportionate impact is not irrelevant [to find invidious racial discrimination],” and discussing Title VII’s more stringent standard for “validation” of challenged practices with racially disproportionate impacts while conceding the benefits of its application in certain situations outside of the holding at issue).

53. *See* Implementation of the Fair Housing Act’s Discriminatory Effects Standard, 78 Fed. Reg. at 11,460 (showing the notice of final rulemaking that described the discriminatory effects provision’s enactment through the FHA and applying it to insurance practices).

54. 24 C.F.R. § 100.500 (2015).

55. *See id.* (including predictable disparate impacts and patterns of segregated housing based on “race, color, religion, sex, handicap, familial status, or national origin”).

56. *See id.* (requiring a plaintiff to establish that the challenged practice has caused or will predictably cause a discriminatory effect as defined in the section).

57. *See id.* (offering defendants a chance to rebut a claimant’s challenge by proving that the challenged practice is “necessary to achieve one or more substantial, legitimate, nondiscriminatory interests” of the defendant).

58. Avraham, *supra* note 19, at 3.

59. 52 F.3d 1351 (6th Cir. 1995).

60. *See id.* at 1354–59 (holding that the government supports HUD’s interpretation of the FHA, which includes a prohibition against “redlining,” and considering it an unfairly discriminatory practice).

The *Cisneros* court defined “redlining” as any situation where “the insurer charges higher rates or declines to write insurance for people who live in particular areas.”<sup>61</sup> A two-to-one decision granted deference to the state’s interpretation of the Rule and deemed redlining an unfairly discriminatory practice under the FHA’s construction in the context of property and hazard insurance.<sup>62</sup> Other courts have similarly applied the Rule to racial and economic discrimination scenarios involving risk assessment.<sup>63</sup>

Such applications of the Rule, however, came under recent scrutiny by the U.S. District Court for the District of Columbia in *American Insurance Association v. United States Department of Housing and Urban Development*.<sup>64</sup> The court found that the FHA’s prohibition is clearly limited to cases of “intentional” discrimination.<sup>65</sup> Consequently, the FHA preempts any disparate impact claims because they necessarily involve a lack of discriminatory intent.<sup>66</sup> Still, other courts have declined to follow the *American Insurance* court’s reasoning and continue to consider the Rule as a legitimate means of finding an insurance practice unfairly discriminatory in certain contexts.<sup>67</sup>

Amidst this disagreement, the Rule won a critical victory in the Supreme Court. In *Texas Department of Housing &*

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61. *Id.* at 1359.

62. *See id.* (“[W]e conclude that HUD’s interpretation of the Fair Housing Act is reasonable in light of the direct connection of availability of property insurance and ability to purchase a house.”).

63. *See Miller, supra* note 45, at 282 (describing various courts’ application of the disparate impact discrimination concept to insurance practices, including racial and economic discrimination scenarios as compared to “risk discrimination”).

64. *See* 74 F. Supp. 3d 30, 40 (D.D.C. 2014) (discussing the operation of the disparate impact rule and the “clear language” jurisprudence surrounding its application to claims of discriminatory intent or effect).

65. *See id.* at 39 (“For the following reasons, I agree with the plaintiffs that the FHA unambiguously prohibits only intentional discrimination.”).

66. *See id.* (holding that because the FHA “unambiguously prohibits *only* intentional discrimination” the Disparate Impact Rule is outside the scope of the APA for this matter).

67. *See Viens v. Am. Empire Surplus Lines Ins. Co.*, 113 F. Supp. 3d 555, 572 (D. Conn. 2015) (declining to follow *American Insurance* in holding that disparate impact claims were not preempted by the FHA and did not conflict with the McCann-Ferguson Act).

*Community Affairs v. Inclusive Communities Project*,<sup>68</sup> the Supreme Court responded to the growing debate over the Rule's role in the FHA. *Inclusive Communities* upheld the FHA's application of the Rule to equal protection claims regarding housing discrimination.<sup>69</sup> The Court praised the Rule's ability to sniff out discriminatory intent<sup>70</sup> and promote the objectives of the FHA.<sup>71</sup> Furthermore, the Court stressed that the limitations and built-in safeguards within the Rule would prevent it from being heavily abused.<sup>72</sup> Among other industries, insurers were disappointed at the result of *Inclusive Communities*, as it represents yet another volley in the increasingly unpredictable enforcement of the Rule.<sup>73</sup>

Given the inherent subjectivity of judicial evaluations of "fairness,"<sup>74</sup> the incongruent landscape of relevant state laws,<sup>75</sup>

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68. 135 S. Ct. 2507 (2015).

69. *See id.* at 2525 ("The Court holds that disparate-impact claims are cognizable under the Fair Housing Act upon considering its results-oriented language, the Court's interpretation of similar language in Title VII and the ADEA, Congress' ratification of disparate-impact claims in 1988 . . . and the statutory purpose.").

70. *See id.* at 2522 ("[The Rule] permits plaintiffs to counteract unconscious prejudices and disguised animus that escape easy classification as disparate treatment.").

71. *See id.* ("The availability of disparate-impact liability, furthermore, has allowed private developers to vindicate the FHA's objectives and to protect their property rights by stopping municipalities from enforcing arbitrary and, in practice, discriminatory ordinances barring the construction of certain types of housing units.").

72. *See id.* at 2522–25 (explaining the requirements for a claim to be brought under the Rule for the purposes of the FHA and the guaranteed opportunity for a defendant to explain a challenged practice, and offering some guidance for lower courts in interpreting whether the claim meets the necessary statutory elements).

73. *See* Greg Stohr, *Insurers Disappointed as Supreme Court Backs Disparate Impact Claims*, *INS. J.* (June 25, 2015), <http://www.insurancejournal.com/news/national/2015/06/25/373004.htm> (last visited Oct. 1, 2016) (detailing the responses of several major insurance lobbyist groups to the *Inclusive Communities* holding, including the promise of the National Association of Mutual Insurance Companies to "continue to fight [HUD's] attempt to impose [the Rule] without justification on the homeowners' insurance marketplace") (on file with the Washington and Lee Law Review).

74. *See supra* notes 28–40 and accompanying text (discussing the subjective analyses courts use in determining fairness in discriminatory practices).

75. *See supra* notes 41–44 (discussing the reliance of courts on state anti-discrimination laws, and the substantive differences and lack of predictability with which they are constructed).

and the precarious state of disparate impact jurisprudence,<sup>76</sup> insured parties may encounter increasing difficulty in challenging insurance practices as unfair where clear discriminatory intent cannot be shown. This trend poses an even graver threat to insured parties when coupled with insurers' unchecked implementation of commercial risk assessment drones, whose capabilities represent the next generation of potentially unfair discriminatory practices.

### *III. Risk Assessment Drones: Introduction, Capabilities, and Current Regulations*

#### *A. Insurance Drones: Integration and Capabilities*

This Note now applies the above understanding of anti-discrimination and disparate impact jurisprudence<sup>77</sup> to the imminent rise of commercial risk assessment drones. By 2020, it is estimated that "30,000 commercial drones will occupy the national airspace."<sup>78</sup> Currently, four major insurance providers have received preliminary "test" exemptions allowing them to use commercial drones for business purposes such as risk assessment and claims adjustment.<sup>79</sup> In total, eleven "insurance companies" have received such exemptions as of this writing.<sup>80</sup> The insurers'

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76. See *supra* notes 64–74 and accompanying text (describing recent challenges to the FHA's application of the Rule and contention over whether to apply it in enforcing discrimination violations found against facially neutral practices with discriminatory effects).

77. See *supra* Part II (outlining the current state of fairness evaluations, state anti-discrimination laws as applied to insurance practices, and disparate impact jurisprudence).

78. See *The Future of Drones in America: Law Enforcement and Privacy Considerations: Hearing Before the S. Comm. on the Judiciary*, 113th Cong. 28 (2013) (Statement of Sen. Patrick J. Leahy, Chairman, S. Comm. on the Judiciary) (estimating the figures for drone integration in the next few years, and discussing the government's increasing role in preparing for that integration).

79. See Michael Thrasher, *Insurance Companies Ready to Use Drones to Evaluate Claims*, VENTUREBEAT (Apr. 23, 2015, 6:00 PM), <http://venturebeat.com/2015/04/23/insurance-companies-ready-to-use-drones-to-evaluate-claims/> (last visited Oct. 1, 2016) ("[In addition to USAA,] State Farm, AIG, and Erie Insurance have also been granted exemptions allowing for the testing or use of drones commercially . . .") (on file with the Washington and Lee Law Review).

80. See *Authorizations Granted Via Section 333 Exemptions*, FED. AVIATION ADMIN.,

justifications for drone implementation include the desires to reduce the number of “feet on the ground” and streamline their claims processes.<sup>81</sup>

It is important to examine the capabilities of these drones to understand the nexus between this technological revolution and the potential for increased discriminatory insurance practices. The latest risk assessment drones can collect images, video, and statistical data at high speeds while flying programmed routes.<sup>82</sup> Many of these drones can also transmit collected data directly to third parties such as defense attorneys and forensic engineers.<sup>83</sup>

The immediate benefits of drone capabilities are concededly appealing, especially considering the scale of properties that insurers must often assess.<sup>84</sup> Researchers laud the preciseness and versatility of the high-resolution cameras and laser scanners on board in creating 3D maps of surveyed areas.<sup>85</sup> The potential for

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[http://www.faa.gov/uas/beyond\\_the\\_basics/section\\_333/333\\_authorizations/](http://www.faa.gov/uas/beyond_the_basics/section_333/333_authorizations/) (last updated Sept. 20, 2016) (last visited Oct. 4, 2016) (showing eleven total entries for exemptions granted to “insurance companies” as defined in the FAA’s database) (on file with the Washington and Lee Law Review).

81. See Thrasher, *supra* note 79 (describing USAA’s desire to implement drones in claims assessment “so that there aren’t as many feet on the ground” and discussing potential data transfer and communication capabilities of drones that could streamline the flow of information).

82. See Agil Francis et al., *Drones: The Insurance Industry’s Next Game-Changer?*, KEEP CHALLENGING 4 (2009), <http://www.cognizant.com/InsightsWhitepapers/drones-the-insurance-industry-s-next-game-changer-codex1019.pdf> (describing the capabilities of risk assessment drones’ on-board infrared cameras, high-resolution cameras, navigation, and data transmission capabilities and claiming that this technology forecloses the need for a human to conduct the investigation in person); see also Hillary B. Farber, *Eyes in the Sky: Constitutional and Regulatory Approaches to Domestic Drone Deployment*, 64 SYRACUSE L. REV. 1, 14–15 (2014) (discussing camera optics, sensors, and other equipment on various models of commercial and military drones).

83. See *White Paper Predicts Drones as Next Big Thing in Insurance*, CLAIMS J., <http://www.claimsjournal.com/news/national/2014/10/23/256681.htm> (last updated Oct. 23, 2014) (last visited Oct. 1, 2016) (“Utilizing outside experts becomes easier since drones could transmit photos to defense attorneys, forensic engineers and inside claims staff.”) (on file with the Washington and Lee Law Review).

84. See *id.* (discussing the ability of risk assessment drone models to reach places, capture images, and scan large areas in ways that human agents cannot).

85. See MEASURE, INC., DRONES FOR DISASTER RESPONSE AND RELIEF OPERATIONS 30 (2015) (describing the capability of drones to use LiDAR lasers and high-definition cameras to map disaster areas, identify flooding patterns, and

instant upload and third-party data transmissions through software integration is also an emphasis point for drone proponents searching for more efficient insurance practices.<sup>86</sup> Additionally, drone payloads are extremely customizable, allowing insurers to outfit a model with anything and everything that might aid the drone's mission.<sup>87</sup> Some have even promoted the idea that insurance drone technology might revolutionize disaster relief and claims processing.<sup>88</sup> It is easy to see why groups champion the introduction of this powerful technology into our airspace—it takes a more critical perspective, however, to realize the risks.

### *B. Drone Regulations Today*

Current government regulations on the use of commercial drones are rudimentary at best, and their future remains vague. The Federal Aviation Administration (FAA) was tasked with promulgating initial rules to govern the integration of commercial drones into the national airspace no later than September 30, 2015.<sup>89</sup> However, the FAA fell well behind the deadline initially set for their first set of rules,<sup>90</sup> eating up months of valuable time

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assess insurance claims and risks).

86. *See id.* at 7 (discussing commercial drone software pairing that allows for things like data-sharing over a cloud-based network, crowd-sourced crisis mapping, and integration with GPS and satellite networks).

87. *See id.* (discussing how a drone's payload affects the types of data it can collect, ranging from infrared and electro-optic sensors to communications relays that broadcast wireless frequencies as a mobile hotspot).

88. *See id.* at 4 (“Drones naturally complement traditional manned relief operations by helping to ensure that operations can be conducted safer, faster, and more efficiently.”).

89. *See* H.R. REP. NO. 112-381, at 64 (2012) (Conf. Rep.) (ordering the FAA to promulgate regulations for the integration of drones into the national airspace no later than September 30, 2015). *See generally* Federal Aviation Administration Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 11 (2012) (offering a full text of the Act that mandates the FAA to provide for commercial drone integration).

90. *See* Dibya Sarkar, *NTIA to Address Drone Privacy, Transparency, Accountability Early Next Month*, CRITICAL INFRASTRUCTURE DAILY (July 21, 2015), <http://criticalinfrastructuredaily.com/ntia-to-address-drone-privacy-transparency-accountability-early-next-month/> (last visited Oct. 1, 2016) (“The FAA is also working on a congressional mandate to safely integrate unmanned aircraft into the national airspace by September, but several officials have previously said that deadline will likely not be met.”) (on file with the Washington and Lee Law

reviewing and addressing comments to its proposed regulations issued in February 2015.<sup>91</sup> In the meantime, the FAA issued a special exemption application process for all “civil” (commercial) unmanned aircraft systems.<sup>92</sup> A “Certificate of Authorization” (COA) is also required but is generally granted as a “blanket” certificate to most applicants.<sup>93</sup> The temporary requirements were broad, cursory regulations aimed mostly at limiting the physical operation.<sup>94</sup> Section 333 restrictions did not specifically evaluate the technological capabilities of exempted drones.<sup>95</sup> Instead, they merely required an applicant to describe the basics of the proposed operation and how the exemption would benefit the public interest.<sup>96</sup>

In a disappointing—and overdue—finale, the FAA announced its pending release of Final Rule 107 for small-scale drone

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Review).

91. See Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9544 (proposed Feb. 23, 2015) (to be codified at 14 C.F.R. pt. 21) (issuing a notice of proposed rulemaking and asking for public comment on the integration of unmanned aircraft systems into the national airspace).

92. See FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, § 333 (2012) (granting the exclusive authority for approval of interim usage of civil unmanned aircraft in the national airspace to the Secretary of the FAA, and mandating the creation of “safe operation” requirements for each unmanned system to receive an exception).

93. See *Petitioning for Exemption Under Section 333*, FED. AVIATION ADMIN., [http://www.faa.gov/uas/beyond\\_the\\_basics/section\\_333/how\\_to\\_file\\_a\\_petition/](http://www.faa.gov/uas/beyond_the_basics/section_333/how_to_file_a_petition/) (last updated Sept. 20, 2016, 8:09 PM) (last visited Oct. 4, 2016) (explaining that COA applications are separate from Section 333 applications, but that a “blanket” COA will be issued to any unmanned air system with a Section 333 exception that is under fifty-five pounds, flies under 200 feet, and is operated during the daytime within visual line of sight of the operator) (on file with the Washington and Lee Law Review).

94. See *id.* (creating effectively applicable minimum safety regulations to every Section 333 exemption, which are entirely aimed at controlling visual line of sight, spacing and maximum altitude of flight, and size of the drone, without regard to technical capability).

95. See *Section 333 Petition Guidance and Checklist*, FED. AVIATION ADMIN., [http://www.faa.gov/uas/beyond\\_the\\_basics/section\\_333/how\\_to\\_file\\_a\\_petition/media/How\\_to\\_Send\\_Your\\_Petition\\_for\\_Exemption\\_or\\_Rulemaking.pdf](http://www.faa.gov/uas/beyond_the_basics/section_333/how_to_file_a_petition/media/How_to_Send_Your_Petition_for_Exemption_or_Rulemaking.pdf) (displaying a checklist containing “all the necessary information” for a complete Section 333 petition, including operator name and address, regulations from which relief is sought, safe operation and benefit the public interest justifications, proposed operations, and the “make and model” of the aircraft, not including operational manuals) (on file with the Washington and Lee Law Review).

96. See *id.* (describing the requirements of the checklist).

operators, which is aimed at “opening pathways towards fully integrating UAS into the Nation’s airspace.”<sup>97</sup>

The rule’s provisions are designed to minimize risks to other aircraft and people and property on the ground. The regulations require pilots to keep an unmanned aircraft within visual line of sight. Operations are allowed during daylight and during twilight if the drone has anti-collision lights. The new regulations also address height and speed restrictions and other operational limits, such as prohibiting flights over unprotected people on the ground who aren’t directly participating in the UAS operation.<sup>98</sup>

Essentially, Rule 107 creates an operational version of the temporary restrictions, leaving most of them in place with only minor changes.<sup>99</sup> Consequently, the FAA’s efforts continue to fall woefully short in addressing the use of drones to collect data on people or property.<sup>100</sup>

A regulatory regime that does not address the technical capabilities of this technology presents a great risk to the future subjects of its application.<sup>101</sup> Without guidance, courts will

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97. See *Press Release—DOT and FAA Finalize Rules for Small Unmanned Aircraft Systems*, FED. AVIATION ADMIN. (June 21, 2016), [https://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=20515](https://www.faa.gov/news/press_releases/news_story.cfm?newsId=20515) (last visited Oct. 1, 2016) [hereinafter *DOT and FAA Finalize Rules*] (describing the main goals of the “first operational set of rules for routine commercial use of small unmanned aircraft systems” and outlining Rule 107’s goals from a policy perspective) (on file with the Washington and Lee Law Review).

98. *Id.*

99. See *id.* (outlining restrictions on line-of-sight piloting, maximum height and speed restrictions, daytime-only flight permissions, pilot age restrictions, and “remote pilot certificate” requirements). Note that Rule 107 essentially mirrors the temporary restrictions explained previously, at least with regard to its focus on the physical attributes of the drone and the conduct of its flight pattern. See *supra* notes 93–95 (outlining the focal points of the temporary Section 333 exemption and temporary restrictions set out by the FAA).

100. See *DOT and FAA Finalize Rules*, *supra* note 97;

Although the new rule does not specifically deal with privacy issues in the use of drones, and the FAA does not regulate how UAS gather data on people or property, the FAA is acting to address privacy considerations in this area. The FAA strongly encourages all UAS pilots to check local and state laws before gathering information through remote sensing technology or photography.

*Id.*

101. See Margot E. Kaminski, *The Rules of the Sky*, SLATE (Feb. 25, 2015, 7:47 AM), [http://www.slate.com/articles/technology/future\\_tense/2015/02/faa\\_small\\_](http://www.slate.com/articles/technology/future_tense/2015/02/faa_small_)

struggle to evaluate the fairness of drones' analytics, calculations, and data collection through a legal lens.<sup>102</sup> As a result, unfair discriminatory insurance practices may become inevitable where a court has only subjective state law to go on and no guidance in evaluating the effects of the technology itself.<sup>103</sup> As of now, the government's efforts to provide this guidance through commercial drone regulations have fallen woefully short.<sup>104</sup>

#### *IV. Potential Influences of Risk Assessment Drones on Unfairly Discriminatory Insurance Practices and Disparate Impacts*

The question remains what effect the introduction of commercial drones will have on unfairly discriminatory insurance practices and whether their use will result in disparate impacts. Exploration of these effects is largely hypothetical, considering the limited use of drones to date.<sup>105</sup> This, however, does not dampen the importance of understanding the trajectory of this technology

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commercial\_drone\_rules\_don\_t\_adequately\_address\_privacy\_concerns.2.html (last visited Oct. 1, 2016) (arguing that the FAA's current "ad hoc" certification system, as well as the proposed rules it has produced, are overly concerned with aircraft safety and operation, and not concerned with the cameras and capabilities of the drones, and the consequences they carry) (on file with the Washington and Lee Law Review).

102. See Jeremy Kun, *Big Data Algorithms Can Discriminate, and It's Not Clear What to Do About It*, GOV'T TECH. (Aug. 13, 2015), <http://www.govtech.com/public-safety/Big-Data-Algorithms-Can-Discriminate-and-Its-Not-Clear-What-to-Do-About-It.html> (last visited Oct. 1, 2016) (arguing that "an even deeper problem [with evaluating fairness of data collection algorithms] is that nobody has agreed on what it means for an algorithm to be fair in the first place") (on file with the Washington and Lee Law Review).

103. See *supra* notes 27–40 and accompanying text (discussing how courts are forced to apply subjective patterns of analysis to "fairness" evaluations and how state anti-discrimination laws often muddle these analyses further through inconsistency in construction and application).

104. See *Drones Take Flight*, LLOYD'S EMERGING RISK REP. 3 (2015), <https://www.lloyds.com/~media/files/news%20and%20insight/risk%20insight/2015/drones%20take%20flight20150820.pdf> ("[T]he industry is growing too rapidly and unevenly for regulators to provide strong oversight without technological support.").

105. See *supra* notes 79–81 (stating that only four insurers have temporary "testing" exemptions to use risk assessment drones, and discussing their reasoning for implementation).

in the insurance field and how readily available it will become.<sup>106</sup> Underestimating the evolution of drones and their commercial capabilities could prove costly to those individuals who find themselves at the mercy of their implementation.<sup>107</sup>

The central thesis of this Note is that, without adequately tailored regulation, the introduction of insurance risk assessment drones will create a rise in unfairly discriminatory insurance practices.<sup>108</sup> Risk assessment drones aim to eliminate the need for human interaction in many situations,<sup>109</sup> can gather and process rapid amounts of previously unavailable data and details,<sup>110</sup> and may potentially share data with other entities to the detriment of the individuals being assessed.<sup>111</sup> Each issue potentially creates serious difficulties for courts and lawmakers in evaluating the fairness of these practices. Insurers claim that their implementation of risk assessment drones is meant to work in

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106. See Lyle Donan, *The Drones Are Here*, CLAIMS MGMT. (Nov. 18, 2013), <http://claims-management.theclm.org/home/article/drones-unmanned-aerial-vehicles-coming-to-property-insurance-claims-industry> (last visited Oct. 1, 2016) (“UAVs eventually will enjoy widespread adoption throughout our industry, and one day in the foreseeable future they will be commonplace.”) (on file with the Washington and Lee Law Review).

107. See Peter W. Singer, *The Predator Comes Home: A Primer on Domestic Drones, Their Huge Business Opportunities, and Their Deep Political, Moral, and Legal Challenges*, BROOKINGS (Mar. 8, 2013), <http://www.brookings.edu/research/papers/2013/03/08-drones-singer> (last visited Oct. 1, 2016) (discussing the “explosion of new types [of drones], ranging in size, shape, and form” and how these changes are ushering in a “crucial opening-up of the user base and functionality of robotics,” meaning that far less training, understanding, and certification is required to pilot today’s drones) (on file with the Washington and Lee Law Review).

108. See *supra* notes 101–103 (discussing the need for an appropriately focused regulatory regime and the potential consequences if one is not generated before the introduction of insurance drones technology).

109. See Donan, *supra* note 106 (“There is a clear motive for us to use [drones] where they can . . . gather intelligence more cost effectively than with human labor.”).

110. See *id.* (“There is a clear motive for us to use [drones] where they can . . . aid in gathering intelligence and scaling up intelligence gathering efforts quickly”); *supra* notes 82–83 (discussing the data collection technology and capabilities of risk assessment drones, as well as their ability to transfer data to other sources and recipients).

111. See *supra* notes 85–86 (discussing drone communication and third-party transmission capabilities, as well as instant-upload and cloud-based sharing software available to commercial drones).

tandem with human agents, not faze them out.<sup>112</sup> However, the potential consequences loom larger than insurers would like to admit, and the American public remains skeptical.<sup>113</sup>

*A. Erosion of the Relationship Between Insurers and Insureds*

To begin, the introduction of drones into insurance practices necessitates a decrease in human interaction during property surveillance, claims adjustment, and risk assessment.<sup>114</sup> Insurers' desire to use drones to reach areas that are inaccessible to humans, as well as to gather and analyze large portions of data in real time, supports this inevitability.<sup>115</sup> Specifically, Erie Insurance stated that they would use test drones to replace human agents in certain underwriting and claims processes.<sup>116</sup> Immediate concerns arise over the number and competency of those individuals operating the drones in practice.<sup>117</sup> Some argue that this reduction in the human

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112. See Young Ha, *Erie Insurance Receives FAA Approval to Use Drones in Claims, Underwriting*, INS. J. (Apr. 15, 2015), <http://www.insurancejournal.com/news/east/2015/04/15/364525.htm> (last visited Oct. 1, 2016) (on file with the Washington and Lee Law Review)

At ERIE, we see drones as high tech meets human touch . . . Drones will help our claims adjusters get an early look at potential damage without putting themselves in harm's way due to unsafe conditions, such as on a steep roof or at the site of a fire or natural disaster.

*Id.*

113. See Joan Lowy & Jennifer Agiesta, *Americans Skeptical Benefits of Commercial Drones Will Outweigh Privacy, Safety Risks*, SUAS NEWS (Dec. 19, 2014), <http://www.suasnews.com/2014/12/33443/americans-skeptical-benefits-of-commercial-drones-will-outweigh-privacy-safety-risks/> (last visited Oct. 1, 2016) ("By a 2-1 margin, those who had an opinion opposed using drones for commercial purposes. Only 21 percent favored commercial use of drones, compared with 43 percent opposed. Another 35 percent were in the middle.") (on file with the Washington and Lee Law Review).

114. See *supra* notes 79–81 (naming the insurers currently approved for exemptions to use risk assessment drones and the stated goal of USAA to use them in an effort to reduce the number of human agents working in the field).

115. See *supra* notes 109–110 (dissecting the insurers' desire and commentators' calls for risk assessment drones to replace human agents, reach inaccessible areas, and increase the size and speed of data collection and analysis).

116. See Ha, *supra* note 112 ("Erie Insurance said the company will be using two drones it currently has for claims and underwriting. 'We'll be using the two drones we have for claims and for underwriting rather than simply research.'").

117. See Donan, *supra* note 106 ("Professional training programs also will be

workforce is not necessarily a present concern because professionals are still often required to evaluate the drones' operations and collected data.<sup>118</sup> While that may be true, the major issue remains whether the denial of the opportunity to interact personally with an insurance agent constitutes or promotes unfairly discriminatory insurance practices.

"The insurer has a duty to conduct a 'reasonable investigation' before denying a claim."<sup>119</sup> Failure to reasonably investigate claims before denial may result in extended liability through "bad faith insurance claims practices as defined by [the relevant statute]."<sup>120</sup> At best, it is questionable whether an investigation without meaningful interaction between the insurer and insured is "reasonable."<sup>121</sup> Such interaction allows for explanations, discussions, and a free exchange of information before or during a thorough analysis, and has traditionally been considered integral to the claims adjustment process.<sup>122</sup> By eliminating this relationship, society risks promoting a process where robotic analytics pre-determine the rating of an individual or group without offering them a chance to be heard.<sup>123</sup> Consider AIG's own

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necessary . . . even an experienced pilot would know that you cannot just grab the sticks of a UAV controller and be a safe, competent operator overnight. The necessary skills take time to practice, learn, and refine.").

118. *See id.* (dismissing immediate concerns over drones "simply [replacing] the human workforce one day" because "the data they collect can be cumbersome and complex" and is "often useless without professional evaluation").

119. 1 JEFFREY E. THOMAS & FRANCIS J. MOOTZ, *NEW APPLEMAN ON INS. LAW LIB. ED.* § 4.06(2) (2013).

120. *Id.*

121. This brings the debate back to the courts, which will struggle to subjectively evaluate whether such a denial was fair or unfair without much guidance from policy or regulation. *See supra* Part II (discussing generally the current state of subjective standards for judicial evaluation of fairness and reasonableness in potentially discriminatory insurance practices).

122. *See The Claims Adjustment Process*, LAPOINTE INS., <http://www.lapointeins.com/claims-center/the-claims-adjustment/> (last visited Oct. 1, 2016) (discussing the claims adjustment process, highlighting the interaction between claims adjusters and the insured through a home visit or a series of visits, and the need for a full preparation and exchange of information and details between the adjuster and the insured to ensure "a thorough and complete evaluation") (on file with the Washington and Lee Law Review).

123. *See* Paul J. Gough, *Erie Insurance Hopes These Are Drones They're Looking for*, PITTSBURGH BUS. TIMES (Apr. 16, 2015, 7:49 AM), <http://www.bizjournals.com/pittsburgh/blog/morning-edition/2015/04/erie-insurance-hopes-these-are-drones-theyre.html> (last visited Oct. 1, 2016) (discussing

vision for its risk assessment drones, which focuses on the relationship between the agent and his drone, not the agent and the insured.<sup>124</sup> It is no great leap to realize the severity of allowing such practices to become the norm without adequate constraints. Without a consistent guidepost, how can courts be expected to evaluate the fairness or reasonableness of this rapid evolution that potentially alienates the insured?<sup>125</sup>

### *B. Potential Abuse of Data-Collection Capabilities*

The unprecedented data-collection capabilities of drones simultaneously present one of their biggest advantages and one of their greatest discriminatory risks.<sup>126</sup> The obvious advantage of commercial drones in claims adjustment and risk assessment is that they are capable of viewing, scanning, and analyzing large spaces in detail.<sup>127</sup> Insurers envision this data as “another tool in

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Erie Insurance Co.’s exploration into commercial risk assessment and underwriting drones, and posing the question of whether “a robotic claims adjuster [is] far behind?”) (on file with the Washington and Lee Law Review). The company is even exploring drones and robots capable of traversing the actual terrain of an insured’s home to analyze it. *See id.* (“[Erie Insurance] has even been in exploratory talks with a company that makes robots that can move across an asphalt shingle.”).

124. *See Poised to Take off: A Harvard Business Review Analytic Services Report*, HARV. BUS. REV. 4 (2015), [http://www.aig.com/Chartis/internet/US/en/19460\\_HBR\\_AIG%20Report\\_UAV\\_tcm3171-709936.pdf](http://www.aig.com/Chartis/internet/US/en/19460_HBR_AIG%20Report_UAV_tcm3171-709936.pdf) (discussing an AIG-sponsored report stating that “UASs can also improve underwriting, enabling carriers to more accurately assess candidates for insurance . . . by determining the probability of damage to buildings, helping insurers to determine where they should assign high deductibles, and advising the insured on loss prevention measures”). The report goes on to espouse the same goals mentioned in this Note by other insurers, focusing on efficiency and the reduction of the need for site visits and specialists. *See id.* (“UASs can make the claims adjustment process less expensive and time-consuming by cutting down on the need for multiple site visits by different specialists.”).

125. *See supra* Part II (discussing generally the current discrepancies in the substantive evaluations of state courts and the lack of consistency and predictability in their evaluation of fairness in challenges to discriminatory insurance practices).

126. *See* MEASURE, INC., *supra* note 85, at 90 (describing common high-resolution cameras and laser-mapping features of risk assessment and other commercial surveillance drones, as well as other data collection and sharing capabilities).

127. *See id.* (describing commercial drone data-gathering capabilities); *see*

the toolbox” for claims adjusters and underwriters when evaluating property.<sup>128</sup> Some have even postulated that these drones can transfer collected data to third parties (such as attorneys) to streamline the process.<sup>129</sup> Lost in this excitement, however, is the potential for discriminatory insurance practices resulting from an unfair abuse of these abilities.

Discriminatory insurance practices can take many forms, including a practice commonly referred to as redlining.<sup>130</sup> Insurers have long toed the line between fair and unfair discrimination in the rating and underwriting processes; however, many courts have found redlining to be a line in the sand.<sup>131</sup> While insurers argue that there is a demonstrated need for some discrimination in risk classification,<sup>132</sup> courts have not extended their sympathies nearly

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*generally supra* Part III (discussing generally the current state of commercial drone technology, including common hardware and software, cameras, laser-mapping, and data sharing).

128. *See* Gough, *supra* note 123 (quoting Erie Insurance as describing the use of drones in underwriting and claims adjustment as “another tool in the toolbox” for its insurance agents).

129. *See supra* notes 86–87 and accompanying text (describing cloud-based computing and data-sharing software in commercial drones, and discussing the potential uses of that software for third-party data sharing and storage).

130. *See* Emily Badger, *Redlining: Still a Thing*, WASH. POST: WONKBLOG (May 28, 2015), <https://www.washingtonpost.com/news/wonk/wp/2015/05/28/evidence-that-banks-still-deny-black-borrowers-just-as-they-did-50-years-ago/> (last visited Oct. 1, 2016) (discussing the roots of redlining stemming from the Home Owner’s Loan Corporation’s practice of drafting maps of American communities throughout the 1930s to determine which citizens were “worthy of mortgage lending”) (on file with the Washington and Lee Law Review). The article goes on to describe redlining’s racial connotations throughout history and its continuance in certain forms today. *See id.* (detailing the FHA’s outlawing of the practice in 1968 and subsequent practices that continued, such as predatory lending and banking tactics, “retail redlining,” and the housing discrimination case between Associated Banking and HUD in Wisconsin in 2008).

131. *See supra* notes 59–61 and accompanying text (discussing the *Cisneros* court’s definition of redlining as any situation where the insurer charges higher rates or declines to write insurance for people who live in particular areas and its holding that such practices were unfairly discriminatory within the constraints of the relevant statute).

132. *See* Avraham, *supra* note 19, at 5 (asserting that laws limiting risk classification practices that resemble redlining “implicate a tradeoff between efficiency and fairness” and that, while this limitation is necessary, these laws can promulgate poor rating systems if no discrimination is allowed); *see, e.g.*, Kenneth S. Abraham, *Efficiency and Fairness in Insurance Risk Classification*, 71 VA. L. REV. 403, 420–50 (1985) (reiterating the concept of the efficiency/fairness tradeoff and the importance of a balance between limiting insurers’ ability to

as far as insurers would like.<sup>133</sup> Courts (and other parties) who support limitations on insurance discrimination often champion fairness-based arguments, highlighting the danger of fragmenting communities through unfair risk classification.<sup>134</sup> The data-collection capabilities of risk assessment drones present a tempting Pandora's box from which new forms of redlining may be released if left unchecked.<sup>135</sup> Insurers have already shown their willingness to use evolving technology such as satellite imagery to push the discriminatory envelope under the guise of efficiency.<sup>136</sup> In many cases, although the state regulators condemn the practice as unfairly discriminatory redlining, they lack the legal capability to stop it.<sup>137</sup> One article quotes Insurance Commissioner John

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discriminate and allowing for some necessary consideration of differing risks presented by each policyholder); Michael Hoy & Michael Ruse, *Regulating Genetic Information in Insurance Markets*, 8 RISK MGMT. & INS. REV. 211, 211–12 (2005) (“Economists can contribute to this debate [about regulating genetic information in insurance markets] . . . [B]y casting the problem as a classic efficiency-equity trade-off. . .”).

133. See *supra* note 131 and accompanying text (reiterating the *Cisneros* holding).

134. See Avraham, *supra* note 19, at 6 (“[Fairness-based] arguments embrace a vision of insurance as [a] solidarity . . . Risk classification undermines this vision . . . by splitting communities into ever smaller and more fragmented risk pools, particularly when it trades on preexisting social inequities and stereotypes.”). “Even when actuarial correlations between characteristics and risk can be demonstrated, defenders of risk classification regulation emphasize that this correlation is socially constructed, reflecting existing norms, assumptions, and biases that frame both the collection and analysis of the data that produces risk assessments.” *Id.*

135. See generally *supra* Part III (giving a general primer on current models of commercial drones and the technological capabilities they possess or may possess in the near future).

136. See *Insurers Using Satellite Photos to Determine Fire Risk*, INS. J. (Sept. 27, 2004), <http://www.insurancejournal.com/news/west/2004/09/27/46293.htm> (last visited Oct. 1, 2016) (detailing a California insurer's use of satellite imagery to deny renewal of coverage to individuals whose property was located near wild brush, and discussing the state regulators' condemnation of the practice as redlining that could lead to arbitrary cancellation of policies) (on file with the Washington and Lee Law Review).

137. See *id.* (“[S]tate regulators say the practice is a form of redlining, discriminating against particular neighborhoods, and could lead to policies being arbitrarily canceled. Insurance Commissioner John Garamendi called it a serious problem but said he does not have the legal right to stop it.”). Insurers argued for the positive aspects of the practice, focusing on efficiency instead of fairness. See *id.* (“Pete Moraga, spokesman for Insurance Information Network of California, a media relations organization supported by insurers, said use of satellite

Garamendi as he condemns the practice further: “Insurance companies are using satellite imagery and just plain photos to redline vast areas of the state without taking into account the individual circumstances of an individual home.”<sup>138</sup> The public largely shares this aversion to such abuses of technology in the underwriting process.<sup>139</sup> It is not difficult, then, to envision a similar struggle with operations of risk assessment drones that result in insurers’ unchecked access to data without interaction with the insured.<sup>140</sup>

### *C. Unchecked Information-Sharing with Third Parties*

Finally, the potential for risk assessment drones to transfer the information they collect and analyze to third parties without the insured’s knowledge or consent is a concern too great to ignore. Data sharing has been lauded as a valuable attribute of many drones, including those aimed at risk assessment and claims adjustment.<sup>141</sup> In the age of cloud-based data sharing and seemingly unlimited access to information, this evolution has naturally expanded to drones.<sup>142</sup> Gathering, processing, and

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technology may prove to be positive if it makes the industry more efficient.”).

138. *Id.*

139. *See, e.g., id.* (interviewing Sheree DiCicco, a policyholder denied coverage due to her property’s proximity to brush—“I didn’t know insurance companies would, or even could, do such a thing”). The article also quotes Harvey Rosenfield, the Spokesman for the Foundation for Taxpayer and Consumer Rights. *See id.* (“I’d not heard of this before; it’s scary. . . . It has a creepy, intrusive aspect to it.”).

140. *See id.* (“Increasingly, however, insurance companies are using satellites to identify homes at high risk of fire damage because of their proximity to brush, a development that alarms some state regulators . . .”). Compare this satellite usage to the routine sweeps and scans of the property surrounding an area using a drone’s on-board cameras during an assessment or claims adjustment envisioned by insurers like Erie Insurance and AIG, and a disconcerting similarity in operation emerges. *See* Gough, *supra* note 123 (discussing Erie Insurance’s vision of drones being used to aid in underwriting and property assessment); HARV. BUS. REV., *supra* note 124, at 4 (describing AIG’s intent to use drones to assess the probability of damage to buildings (similar to the satellite usage) and help insurers determine where they should assign high deductibles).

141. *See* MEASURE, INC., *supra* note 85, at 7 (exploring the third-party transmission and data-sharing capabilities of the latest models of commercial drones).

142. *See* Colin Snow, *Drones Revolution Means Big Data Cloud Services*, DIGITALIST MAG. (Feb. 18, 2014), <http://www.digitalistmag.com/digital->

sharing data is often considered the primary goal of most commercial drone operations.<sup>143</sup> Anything beyond a cursory glance at the current landscape, however, reveals the dangers of this unfettered information exchange.<sup>144</sup> Insurers could potentially share data with third-party experts, evaluators, or even other agencies without the knowledge or consent of the insured, and may even use “middle-man” companies to process and share this data.<sup>145</sup>

State legislatures have already shown that the transfer and disclosure of information pertaining to private property will not be treated lightly.<sup>146</sup> Rules and regulations limiting data collection,

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economy/2014/02/18/drones-revolution-and-big-data-cloud-services-01244771 (last visited Oct. 1, 2016) (discussing the future of data sharing and analytics through cloud-based software in drones, including PrecisionHawk’s PrecisionMapper service, which it calls “a cloud-based application that gives anyone the ability to upload, store, process, and share their aerial image data”) (on file with the Washington and Lee Law Review).

143. *See id.* (discussing drones’ prolific application as data-collection vehicles that can process and share massive amounts of data in useful formats to third parties and consumers, such as farm and crop data like crop yield, feed and livestock replenishing windows, and other micro-analyses).

144. After all, insurers are beginning to use shared information from other technological providers, such as social media, to adjust premiums and conduct risk-discriminatory underwriting. *See* Anita Ramasastry, *Will Insurers Begin to Use Social Media Postings to Calculate Premiums?*, VERDICT (Jan. 3, 2012), <https://verdict.justia.com/2012/01/03/will-insurers-begin-to-use-social-media-postings-to-calculate-premiums> (last visited Oct. 1, 2016) (explaining comments regarding current insurer uses of social media posts and profiles to detect fraud or misrepresentations, and examining predictions from insurance analysts that the insurance industry is and will continue to trend towards research activity that will aid in underwriting and risk discrimination) (on file with the Washington and Lee Law Review).

145. *See* Denise Johnson, *In-Depth Study Reveals How Drones Can Help in All Phases of a Disaster*, CLAIMS J. (May 18, 2015), <http://www.claimsjournal.com/news/national/2015/05/18/263420.htm> (last visited Oct. 1, 2016) (discussing the practical applications of real-time data processing and sharing through risk assessment and claims adjustment drones, as well as the use of third-party companies like Measure, Inc., to process and share the data with parties as directed by the insurer) (on file with the Washington and Lee Law Review). The article used the example of assessment and claims adjustment during pre- and post-disaster efforts. *See id.* (discussing how data sharing and middle man companies could aid insurers by processing and sharing the data as needed so that insurers need not maintain a large drone fleet).

146. *See* Amy O’Connor, *Insurers Warned to ‘Think Before You Snap’ as Florida Drone Privacy Law Takes Flight*, INS. J. (July 29, 2015), <http://www.insurancejournal.com/news/southeast/2015/07/29/376560.htm> (last

transfer, exchange, and access are necessary to protect policyholders.<sup>147</sup> Without them, insurers and third parties may share information they would not have otherwise had access to and produce discriminatory assessments and ratings.<sup>148</sup>

The introduction of commercial drones into commercial fields like risk assessment and claims adjustment is clearly inevitable.<sup>149</sup> However, with new technology comes a responsibility to develop and maintain adequate, proactive policy standards governing its use.<sup>150</sup> This Note does not fear the age of the drone, nor herald their coming as some imminent doom of the insured.<sup>151</sup> This Note is not a zealous prophet of some great technopanic.<sup>152</sup>

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visited Oct. 1, 2016) (examining a Florida law that prohibits image-capturing of a person or their private property unless it is within the scope of authorization, and discussing the uncertainty as to how courts will approach insurers' collection and sharing of data via drones for risk assessment and claims adjustment) (on file with the Washington and Lee Law Review). This Note does not discuss drone privacy issues in detail, but the overlap between privacy concerns and the potential for unfairly discriminatory practices through the acquisition of drone-gathered data via unilateral sharing is worth noting. *See id.* ("The insurance industry is all about managing risk and the moral of the story is think before you snap that picture . . . Instead, identify the use of drone technology in the insurance policy and let the insured know they may be filmed during the adjustment process.").

147. *See* Lindsey Harriman & Joseph Muhlhausen, *A New Eye in the Sky: Eco-Drones*, UNEP GLOBAL ENVTL. ALERT SERV. 1, 9 (2013), [http://www.unep.org/pdf/UNEP-GEAS\\_MAY\\_2013.pdf](http://www.unep.org/pdf/UNEP-GEAS_MAY_2013.pdf) (discussing the need for data sharing standards to be created for the operation of environmental mapping and surveillance drones, especially in areas not native to the operator).

148. *See id.* (warning of the potential for unchecked data sharing to grant people or entities access to data that they otherwise would not, or should not, have had).

149. *See id.* at 9 ("According to a 2012 United States Government Accountability Office (GAO) report, the number of countries with a UAV system for military, commercial, or civil use grew from 41 countries in 2004 to 76 countries by 2011.").

150. *See id.* (asserting that, "as UAVs become more prevalent in the public and private sectors for research and non-military surveillance, many policy considerations will need to be made," and discussing several forms of regulation that will likely be necessary for research and surveillance drones in the future).

151. *See* ADAM THERIER, PERMISSIONLESS INNOVATION: THE CONTINUING CASE FOR COMPREHENSIVE TECHNOLOGICAL FREEDOM 22 (2014) ("Unsurprisingly, however, private drones have also raised many safety, security, and privacy concerns. . . . Many [advocates] fear that commercial drones will soon darken our skies and create an omnipresent panopticon.").

152. *See id.* at 21–22 (defining "technopanic" as "intense public, political, and academic responses to the emergence or use of media or technologies," and

Instead, it aims to identify a glaring concern and the need to address it.<sup>153</sup> Without a competent regulatory regime specifically targeted at risk assessment and claims adjustment processes, commercial drones remain an open door to redlining and other discriminatory insurance practices.<sup>154</sup> Courts cannot be expected to unify and create predictable standards of use on their own; policyholders deserve a better system than state-by-state regulation and a lack of predictable enforcement and restraint on insurers.<sup>155</sup> The questions then posed are (1) what must be included in such a regulatory scheme, and (2) who has the power and ability to enact it?<sup>156</sup>

### V. Proposed Regulatory Framework for Insurance Drones

Proposing a sufficient regulatory framework for risk assessment drones requires (1) an understanding of current regulatory efforts towards commercial drones,<sup>157</sup> (2) an

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identifying root causes and trends that inspire this fear and drive activism against technological innovation).

153. See *supra* notes 108–111 and accompanying text (restating the thesis of this Note as the potential for an increase in unfairly discriminatory insurance practices resulting from the introduction of commercial risk assessment drones).

154. See *supra* notes 136–139 and accompanying text (discussing insurers' current usage of evolving technology to discriminate in underwriting and risk assessment, and drawing parallels to potential uses of drone technology).

155. See Gregory McNeal, *Drones and Aerial Surveillance: Considerations for Legislators*, CTR. FOR TECH. INNOVATION BROOKINGS 1, 4 (2014), [http://www.brookings.edu/~media/Research/Files/Reports/2014/10/drones-aerial-surveillance-legislators/Drones\\_Aerial\\_Surveillance\\_McNeal\\_FINAL.pdf?la=en](http://www.brookings.edu/~media/Research/Files/Reports/2014/10/drones-aerial-surveillance-legislators/Drones_Aerial_Surveillance_McNeal_FINAL.pdf?la=en) (introducing the impending conflicts brought by commercial drones, and recommending core considerations for legislators, including a property rights approach to aerial surveillance, strict data retention, storage, and transfer procedures, transparency and accountability for operators, and duration-based surveillance regulations).

156. See *id.* at 2 (discussing the current state of drone legislation and its focus on technological capabilities as opposed to perceived or recognized harms, and the inadequacies that have followed, introducing ideas of what might be included in a better regulatory scheme, and noting the importance of having the right parties enact reforms).

157. See *supra* notes 88–96 and accompanying text (outlining the current regulatory schemes introduced by the FAA, preliminary restrictions on commercial drone use, the process for exemptions, and its limitation in scope). See generally Federal Aviation Administration Modernization and Reform Act of 2012, Pub. L. No. 112-95, 126 Stat. 11 (framing the FAA's task of creating rules

examination of how risk assessment drones may leave individuals susceptible to unfairly discriminatory practices and what countermeasures are available against those risks, and (3) an evaluation of which entities (if any) are suitable to introduce such countermeasures.<sup>158</sup>

Drone use in the commercial context is still a regulatory blank slate, relying only on temporary FAA operational standards.<sup>159</sup> Industry-specific uses, particularly in an insurance risk assessment and claims adjustment context, have yet to be addressed in detail.<sup>160</sup> While the current FAA structure offers only

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for the integration of unmanned aircraft systems into the national airspace, and discussing the preliminary restrictions in place while rulemaking is underway).

158. See Thomas Gounley, *Commercial Use of Drones: With Strict FAA Regulation, Some Locally Wait for Exemption, Others Just Fly*, SPRINGFIELD NEWS-LEADER (July 2, 2015), <http://www.news-leader.com/story/news/business/2015/07/15/commercial-use-drones-strict-faa-regulation-locally-wait-exemption-others-just-fly/30146599/> (last visited Oct. 1, 2016) (interviewing various entrepreneurs to demonstrate the FAA's current monopoly on allowing or restricting any commercial operation of UAVs) (on file with the Washington and Lee Law Review). However, many suggest that the FAA's ability to regulate and restrict commercial drone operation in the national airspace is limited, both in the scope of coverage and applicability to the public. See Peter Sachs, *Current U.S. Federal Drone Law*, DRONE L.J. (Dec. 14, 2013), <http://dronelawjournal.com/> (last updated Dec. 25, 2015) (last visited Oct. 1, 2016) (discussing the current extent of FAA regulations on commercial drone operation, arguments that the FAA Modernization and Reform Act and the proposed rulemakings for commercial drone integration do not always apply to the general public, and commenting on the limitations in the scope of coverage of current drone legislation) (on file with the Washington and Lee Law Review); Jeff Foster, *Keep Calm: The FAA and sUAVs/Drone Rules*, PROVIDEO COALITION (Sept. 22, 2015), <http://www.provideocoalition.com/drone-law-update-faa> (last visited Oct. 1, 2016) ("[T]he FAA can't make laws—only develop guidelines and regulations. The federal government has no authority whatsoever to regulate the operation of remote-controlled model aircraft.") (on file with the Washington and Lee Law Review).

159. See *supra* notes 89–96 and accompanying text (explaining the operation of current FAA commercial drone regulations, the process of FAA's proposed rulemaking, the current process for obtaining an exemption, and the expected trajectory and limits of the FAA's rulemaking).

160. See Miriam McNabb, *Regulations Matter: 3 Regions Crushing the U.S. in Drone Industry*, DRONELIFE.COM (Jan. 8, 2016), <http://dronelife.com/2016/01/08/regulations-matter-3-regions-crushing-the-u-s-in-drone-industry/> (last visited Oct. 1, 2016) (discussing the United States' lack of industry-specific guidelines and regulations for companies wishing to enter the market and the economic impact this is having as those entities pursue activity in drone-friendly climates like China and Brazil) (on file with the Washington and Lee Law Review).

preliminary testing exemptions,<sup>161</sup> drone technology will most likely spread to the insurance industry in the coming years. Without targeted restrictions from appropriate entities on usage, data collection, analysis, and information sharing, the likelihood of abuse resulting in unfairly discriminatory insurance practices remains dangerously high.

### *A. Current Regulatory Efforts and Inadequacies*

At the outset, it is prudent to take stock of current regulatory efforts that will impact the integration of commercial drones into the insurance industry.<sup>162</sup> As discussed previously, the FAA has been tasked with facilitating commercial drone integration into the national airspace across all industries and uses.<sup>163</sup> The scope of the FAA's mandate, however, is limited to regulating the physical operation and registration of drones in the airspace.<sup>164</sup> This narrow authority, combined with a sluggish preliminary regulatory period, has led to uncertainty as to the future of industry-specific regulations for this evolving technology.<sup>165</sup> Current efforts focus on the operator's flight conditions and visibility, as well as maximum altitude and drone size restrictions.<sup>166</sup> In addition, initial

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161. See *supra* notes 93–95 and accompanying text (discussing the scope, process, and requirements of a temporary exception to “test” commercial drone operations).

162. See *generally supra* Part III (discussing the development of commercial drone integration restrictions, exemptions, and other FAA processes).

163. See *supra* note 89 and accompanying text (discussing the FAA's mandate on national airspace integration, and providing general background on the Federal Aviation Administration Modernization and Reform Act of 2012 and its implications).

164. See H.R. REP. NO. 112-381, at 64 (2012) (Conf. Rep.) (detailing the objectives of Section 332 of the Act, which focus on the FAA's mandate to provide for “acceptable standards for operation and certification of civil unmanned aircraft,” and prioritizing registration and operator certification procedures).

165. See Alan Levin, *FAA's Power to Police Civilian Drones Bolstered by Decision*, BLOOMBERG BUS. (Nov. 18, 2014, 8:48 AM), <http://www.bloomberg.com/news/articles/2014-11-18/drone-flights-over-sports-events-subject-to-faa-rules-ntsb-says> (last updated Nov. 18, 2014, 2:49 PM) (last visited Oct. 1, 2016) (“[T]here are still unresolved questions about how drone flights will be regulated and a community of users increasingly frustrated with the FAA's slow action . . . . At least three other court cases challenging FAA authority are pending.”) (on file with Washington and Lee Law Review).

166. See *supra* note 93 and accompanying text (listing the requirements for

regulatory attempts by the FAA and the Department of Transportation (DOT) imposed mandatory registration and fee requirements for commercial pilots.<sup>167</sup> However, any positive impact of this legislation was tempered because the exemption format prohibited commercial users from piloting without a registered exemption—essentially presenting an analogous registration-style barrier.<sup>168</sup> This registration scheme operates as a logistical hindrance on the industry rather than a regulatory aid to integration, and odds are its successors will similarly inhibit progress.<sup>169</sup> Some have even alleged that the FAA's efforts are in danger of violating the constitutional requirements of due process.<sup>170</sup> The publication of Final Rule 107 has done little to allay

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receiving an exemption under Section 333 of the Act, focusing on weight, maximum altitude, and visual line of sight requirements for the drone and operator); *see also supra* notes 97–100 and accompanying text (demonstrating the limitations of Final Rule 107 and the FAA's intentional focus on physical flight restrictions and disregard of data collection and privacy issues).

167. *See* Keith Laing, *Feds Announce Drone Registration Requirements*, HILL (Dec. 14, 2015, 10:17 AM), <http://thehill.com/policy/transportation/263106-feds-announce-drone-registration-requirements> (Oct. 1, 2016) (“The [DOT] said drone users will have to register their devices by Feb. 19, 2016, in a new Web-based tracking system . . . The agency is imposing a \$5 fee for drone registrations . . . but the FAA said it is waiving the charge for the first 30 days of the new requirement.”) (on file with the Washington and Lee Law Review).

168. *See Petitioning for Exemption, supra* note 93 (outlining the procedure for procuring an exemption for pre-regulation commercial drone “testing,” and discussing the prohibition of flights not authorized by such an exemption).

169. *See* Laing, *supra* note 167 (“Drone advocates had urged the FAA not to impose registration fees in the new documentation system that is being set up to help the federal government keep track of the devices, arguing that the charge would deter drone operators from complying with the new requirements.”); Eli Dourado, *The Government Is Rushing Out an Ill-Conceived Plan to Regulate Consumer Drones*, VOX TECH. (Nov. 12, 2015, 8:30 AM), <http://www.vox.com/2015/11/12/9716350/drones-obama-faa-christmas> (last visited Oct. 1, 2016) (“Unless the FAA decides to exempt small, consumer drones, kids who get Millennium Falcon drones for Christmas may have to wait until they are registered with the FAA to play with them—or face jail time.”) (on file with the Washington and Lee Law Review).

170. *See* Keith Laing, *Critics Threaten Lawsuit Over Drone Registration Rules*, THE HILL (Dec. 14, 2015, 3:12 PM), <http://thehill.com/policy/transportation/263164-critics-threaten-lawsuit-over-faa-drone-registration-rules> (last visited Oct. 4, 2016) (“The Washington, D.C.-based Competitive Enterprise Institute said Monday the FAA violated federal requirements for allowing public comments on the drone registration proposal, which usually lasts for a period of 30 to 60 days.”) (on file with the Washington and Lee Law Review). Marc Scribner, transportation policy expert for the Competitive Enterprise Institute, stated “The FAA's claim

these concerns, due in large part to the fact that restrictions on piloting are vague, apply only to small-scale, non-hobby commercial drones, and still require permit-style certificates of authorization for flight.<sup>171</sup>

With specific regard to the insurance industry, it appears that the FAA may have some power to regulate acceptable data collection, use, and sharing guidelines.<sup>172</sup> Although this power seems limited to approval, it remains controversial due to the lack of data collection laws.<sup>173</sup> Many interest groups and political watchdogs have already spoken towards issues of privacy and security,<sup>174</sup> but commentary from similar players on industry-specific uses for commercial drones—including insurance

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that complying with notice and comment requirements for small drone registration regulation is ‘impracticable and contrary to the public interest,’ so that it can therefore ignore them, is as predictable as it is absurd.” *Id.*

171. See *Press Release, supra* note 97 (“To qualify for a remote pilot certificate, an individual must either pass an initial aeronautical knowledge test at an FAA-approved knowledge testing center or have an existing non-student Part 61 pilot certificate.”).

172. See John Dyer, *FAA Approves Corporation’s Use of Drones to Collect Data, Prompting Protest from Privacy Advocates*, VICE NEWS (Sep. 2, 2015, 4:53 PM), <https://news.vice.com/article/faa-approves-corporations-use-of-drones-to-collect-data-prompting-protest-from-privacy-advocates> (last visited Oct. 1, 2016) (detailing the FAA’s approval of Measure, Inc.’s commercial drone exemption for a fleet of “aerial data acquisition” drones, mostly to be used for disaster relief efforts) (on file with the Washington and Lee Law Review).

173. See *id.* (“Right now there are virtually no laws to address the commercial use of drones to collect massive amounts of data on the public,” said Jeramie Scott, national security counsel for the Electronic Privacy Information Center . . . . ‘Drones are basically flying surveillance platforms . . . .’”).

174. See The Canadian Press, *Drones Should Be Restricted Near Homes, Schoolyards, Privacy Watchdog Says*, CBC NEWS (Nov. 2, 2015, 12:27 PM), <http://www.cbc.ca/news/technology/drones-privacy-commissioner-1.3299892> (last visited Oct. 1, 2016) (“Drones can be outfitted with high-powered zoom lenses, night-vision or infrared-imaging systems, and video software that can recognize specific people . . . . These features demand an emphasis on personal protection in regulations and licensing standards, the commissioner’s office says in its submission to the advisory council.”) (on file with the Washington and Lee Law Review); Michelle L. Price, *States Are Itching to Use Drones, But Privacy Watchdogs Say Not So Fast*, HUFFINGTON POST (Mar. 11, 2014, 8:17 AM), [http://www.huffingtonpost.com/2014/03/11/states-drones-privacy\\_n\\_4940365.html](http://www.huffingtonpost.com/2014/03/11/states-drones-privacy_n_4940365.html) (last visited Oct. 1, 2016) (discussing various legislative efforts of Utah, California, and other western states, as well as the positions of lobbyists like Citizens Education Project, in regards to integrating drone usage into use by state agencies, police, and other official groups, as well as commercial entities) (on file with the Washington and Lee Law Review).

practices—has been scarce. After the FAA’s latest publication, it appears they will continue to avert their gaze from these issues in disappointing—but not necessarily surprising—fashion.<sup>175</sup> Congress has tasked some agencies with researching and compiling “best practices” for commercial drone use.<sup>176</sup> However, many of these are likely outside of the insurance scope and amount to little more than non-binding guidelines for use.<sup>177</sup> Consequently, it is clear that current efforts have done little to point the insurance industry’s use of commercial drones in a comprehensible direction.<sup>178</sup>

*B. Identification of Risks and Exploration of Countermeasures to Unfair Discrimination and Disparate Impact*

Although the constitutional and regulatory landscapes remain barren for now,<sup>179</sup> all is not lost for insureds that find themselves

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175. See *supra* notes 99–100 (quoting Final Rule 107 to demonstrate that it does not address the use of drones for data collection of people and property and that the FAA is still “gathering data” on such issues).

176. See Harley Geiger, *CDT Proposes Privacy Best Practices For Drones*, CTR. FOR DEMOCRACY & TECH. (Dec. 16, 2015), <https://cdt.org/blog/cdt-proposes-privacy-best-practices-for-drones/> (last visited Oct. 1, 2016) (“CDT is proposing comprehensive voluntary privacy best practices for private use of drones—both commercial and non-commercial.”) (on file with the Washington and Lee Law Review).

177. See *Voluntary Best Practices for UAS Privacy, Transparency, and Accountability*, NAT’L TELECOMM. & INFO. ADMIN. (Dec. 22, 2015), [https://www.ntia.doc.gov/files/ntia/publications/combined\\_draft\\_working\\_group\\_12\\_22\\_2015.pdf](https://www.ntia.doc.gov/files/ntia/publications/combined_draft_working_group_12_22_2015.pdf) (discussing the NTIA’s federal mandate to receive public notice and comment and issue “best practices” for commercial and private drone use, which recommend practices for everything from data security to maintaining a familiarity with evolving federal regulation).

178. See *Drones—Unmanned Airsystems*, NAT’L ASS’N OF INS. COMMISSIONERS (Sept. 17, 2015), [http://www.naic.org/cipr\\_topics/topic\\_drones.htm](http://www.naic.org/cipr_topics/topic_drones.htm) (last visited Oct. 1, 2016) (stating that “[w]ith the commercial use of drones expected to expand rapidly in about five years, it is paramount to have established rules regulating their use,” and underscoring the lack of current industry-specific regulations on drone use) (on file with the Washington and Lee Law Review).

179. See *Dow Chem. Co. v. United States*, 476 U.S. 227, 239 (1986) (holding that aerial surveillance photography used primarily for mapmaking and “site inspection” was not an illegal search and seizure under the Fourth Amendment); McNeal, *supra* note 155, at 6–8 (discussing the development of Supreme Court jurisprudence on the subject of aerial surveillance technology, including Fourth Amendment implications, and the potential conflict that commercial and private

at the mercy of these autonomous agents. Previously, this Note addressed certain discriminatory insurance practices looming as dangerous consequences of the drone revolution.<sup>180</sup> The next step is to identify countermeasures against unfair discrimination and disparate impact in the context of risk assessment and claims adjustment, a process that some states have already begun.<sup>181</sup> This will generate a much-needed policy framework addressing the collection, sharing, and discriminatory applications of drone-gathered information.<sup>182</sup>

### *1. Method for Identifying Potential Risks and Countermeasures*

First and foremost, we must decide the method by which these regulatory countermeasures are identified and constructed. Some interested scholars recommend avoiding broad, sweeping restrictions like the FAA's current efforts.<sup>183</sup> This is because, in any context, a lack of specificity does more harm than good,

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drone use poses due to a lack of regulations addressing how they fit into that jurisprudence).

180. See generally *supra* Part IV (discussing unfairly discriminatory insurance practices and the increase in their potential through the integration of commercial drones into the risk assessment and claims adjustment processes).

181. See Amy Clarke Burns, *S.C. Considers the Promise and Potential for Abuse of Drones*, STATE (Aug. 19, 2015, 8:18 PM), <http://www.thestate.com/news/state/south-carolina/article31578377.html> (last visited Oct. 1, 2016) (describing the conflict between the advance of commercial drones and an inadequate regulatory landscape, and talking about how some states, like South Carolina, are not waiting for FAA regulations before introducing regulatory legislation at the state level) (on file with the Washington and Lee Law Review). Some of these efforts have crossed into creating criminal offenses for the misuse of commercial drones that could apply even outside of the risk assessment and claims adjustment context. See *id.* ("South Carolina's pending bill would amend state law regarding trespassing to make it illegal to fly drones 'upon or above the land of another.'").

182. See *id.* ("With the newness and technology, we've got to have some guidelines that people have to follow under the law of what's permissible," said state Sen. Thomas Alexander, a co-sponsor of the proposed legislation. "As we see more and more of that capability, there needs to be some framework as to what's acceptable.").

183. See McNeal, *supra* note 155, at 24 ("Some jurisdictions have enacted limitations on how information gathered from drones may be used. Legislators should reject these broadly worded use restrictions that prohibit the use of any evidence gathered by drones in nearly any proceeding.").

creating loopholes and exceptions that ultimately engulf the rule.<sup>184</sup> The key here is to match potential dangers with individual, customized solutions, and then unite them within a synergetic, cohesive framework.<sup>185</sup> From there, coordination at the federal and state levels will give this set of regulations the consistency required to realize its full potential.<sup>186</sup> This creates sorely needed predictability in enforcement for courts and legislators.<sup>187</sup> Gregory McNeal applies the above methodology in suggesting a similar regulatory approach for commercial drone use by the government.<sup>188</sup> His goal is to create an “effective and clear legislative package” that will address the multi-faceted concerns of commercial drone integration.<sup>189</sup> If an analogous “package” can be formulated through this Note’s proposal, the potential for unfair discrimination at the hands of insurance drones will reduce considerably.

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184. See *id.* at 24–25 (exploring the situation in Alameda County, California, where the sheriff’s department has proposed the use of drones for crime scene analysis and surveillance, and evaluating the opposing concerns that highlight the regulation’s inability to stop the sheriff from using the data for “untold other purposes”).

185. As an analogous example, consider the European Aviation Safety Agency (EASA)’s recent announcement of its commercial drone integration plan. See *Proposal to Create Common Rules for Operating Drones in Europe*, EUROPEAN AVIATION SAFETY ADMIN. 2 (Sept. 2015), [https://easa.europa.eu/system/files/dfu/205933-01-EASA\\_Summary%20of%20the%20ANPA.pdf](https://easa.europa.eu/system/files/dfu/205933-01-EASA_Summary%20of%20the%20ANPA.pdf) (proposing a regulatory framework centered around three particular “categories of operation” that are “based on the risk the operation is posing to third parties (persons and property)”).

186. See McNeal, *supra* note 155, at 25 (suggesting that legislators should codify their regulations and the specific exemptions to them so as to present an obstacle to loophole arguments and promote consistent interpretation of the regulations).

187. See *supra* notes 41–44 and accompanying text (detailing the mass inconsistencies and dearth of applicable law for courts and legislators to follow in evaluating discriminatory practices for fairness, and discussing the lack of federal legislation to direct the states in their efforts moving forward).

188. See *generally* McNeal, *supra* note 155 (laying out a framework of considerations for legislators as they attempt to create regulations for the use of commercial drones in government surveillance and imaging practices).

189. See *id.* at 28 (concluding that the best regulatory approach to issues involving commercial drones is to avoid disrupting the “status quo” while combining rules targeted at the surveillance practices, data retention, and transparency by the user to create a “complete legislative package”).

Having solidified the regulatory proposal's *modus operandi*, the discussion now turns to identifying the risks it must account for if it is to succeed. Framed within a concern for potential increases in unfairly discriminatory insurance practices, this Note identifies many of the risks associated with the integration of risk assessment and claims adjustment drones.<sup>190</sup> These risks include; (1) a reduction in the presence of human agents on site,<sup>191</sup> (2) the danger that insurance underwriting formulas will depend on data that drones gather, analyze, and share without adequate regulatory safeguards,<sup>192</sup> and (3) the burden on courts and legislators to evaluate the fairness of any resulting discrimination, including disparate impact and redlining.<sup>193</sup> Without regulatory attention, these new risks will drastically alter the insurance landscape, and the task of evaluating their consequences will only grow more problematic.<sup>194</sup>

## 2. Proposed Countermeasures

### a. Minimum Visitation Requirement for Human Agents

A reduction in on-site human interaction during risk assessment and claims adjustment would be problematic for the

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190. See generally *supra* Part IV (exploring specific consequences of commercial drone use in risk assessment and claims adjustment and their potential to increase unfairly discriminatory insurance practices).

191. See *supra* notes 120–125 and accompanying text (highlighting the importance of personal interaction between agents and policyholders in conducting a “reasonable” investigation during risk assessment and claims adjustment, and examining the consequences of reducing or eliminating this presence).

192. See *supra* notes 136–140 and accompanying text (outlining the dangers of abuse in data gathering, analysis, and sharing through commercial drones in risk assessment and claims adjustment, and exploring how those dangers might affect the underwriting process as it relies on such data).

193. See generally *supra* Part II (providing an overview of current jurisprudence on discriminatory insurance practices, examining the deficiencies in current subjective patterns of analysis courts use in evaluating these practices, and hypothesizing the difficulties that commercial drone integration into the insurance industry will impose on these evaluations).

194. See *supra* notes 29–42 and accompanying text (comparing examples of court processes for evaluating discriminatory practices and discussing the subjective nature of those analyses).

industry.<sup>195</sup> It is well established that the risk assessment process balances interests in efficiency and fairness.<sup>196</sup> At what point, however, are we willing to watch the former devour the latter entirely? With the advent of drones that are capable of completely replacing human agents,<sup>197</sup> our regulatory framework must ensure a minimum level of interpersonal interaction in insurance operations. If it fails to do so, the result could be the burial of fairness in risk assessment altogether.<sup>198</sup>

The goal of any regulatory scheme regarding risk assessment and claims adjustment begins with a desire to avoid unfair discrimination.<sup>199</sup> Imposing a minimum human visitation requirement to risk assessment and claims adjustment sites ensures due process and a reasonable investigation into any claim or risk assessment.<sup>200</sup> More importantly, it allows policyholders to remain an active part of the process.<sup>201</sup> Requiring signatures,

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195. See *supra* notes 119–124 and accompanying text (examining the negative effects of a reduction in interpersonal contact between policyholders and insurance agents and claims adjusters during those processes).

196. See Avraham, *supra* note 19, at 5 (“Laws limiting risk classification in insurance implicate a tradeoff between ‘efficiency’ and ‘fairness’ concerns.”).

197. See Hilary Rowen, *The Flying Insurance Adjuster—Implications of Insurers’ Use of Drones*, BLOOMBERG BNA (May 14, 2015), <http://www.bna.com/flying-insurance-adjusterimplications-n17179926526/> (last visited Oct. 1, 2016) (“Rather than having inspections done by a person peering up from the ground, on a ladder or walking through a field, the inspections will be done by a person looking at photos taken by a drone or reviewing a computer analysis of data collected through drone-mounted sensors.”) (on file with the Washington and Lee Law Review).

198. See Avraham, *supra* note 19, at 21 (“First, fairness and efficiency concerns often, though not always, cut in opposite directions. Trading off efficiency and fairness concerns is what lawmakers are asked to do every day, but predicting the outcome of such balancing is no easy task.”).

199. See *supra* notes 21–22 and accompanying text (discussing the core principles behind standard rating and risk assessment policies, which include avoiding inadequate or unfairly discriminatory results).

200. See *supra* notes 119–120 and accompanying text (explaining that insurance agents must conduct “reasonable investigations” during claims adjustment to avoid bad faith accusations).

201. In his recommendations to legislators, Gregory McNeal discusses the value of including the public in the loop of aerial surveillance and drone operations. See McNeal, *supra* note 155, at 20–21 (chronicling the timeline of helicopter and drone operations in the United Kingdom, and quoting several officials who interpreted the public’s extremely positive response to increased transparency and communication).

statements from policyholders during on-site interviews, or the completion of situational investigation “checklists” by insurance agents would be straightforward methods of ensuring compliance.<sup>202</sup> If a regulatory scheme does not safeguard some form of personal contact, it is only a matter of time before insureds are excluded from the process altogether.<sup>203</sup>

*b. Restrictions on Access, Retention, and Transfer of Drone-Gathered Data*

Ensuring responsible, fair, and secure data practices is the other primary goal of this regulatory scaffold.<sup>204</sup> The allure of risk assessment drones lies not only in their ability to reach dangerous and inaccessible areas, but also in their technological versatility.<sup>205</sup> These drones are equipped to capture, store, and even transmit high volumes of data and imagery with incredible efficiency.<sup>206</sup> For a system of regulation on these drones to have any teeth, the entire

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202. Insurers consider many of these processes “tedious,” and investigations and inspections often lack promptness and attention to detail, which these requirements could remedy. See Chip Merlin, *Contents Claim Adjusting Is Tedious, Time Consuming and Few Insurance Carriers Do It Right*, PROP. INS. COVERAGE L. BLOG (June 21, 2013), <http://www.propertyinsurancecoveragelaw.com/2013/06/articles/insurance/contents-claim-adjusting-is-tedious-time-consuming-and-few-insurance-carriers-do-it-right/> (last visited Oct. 1, 2016) (discussing how a majority of insurers often lack promptness and attention to detail during claims adjustments on contents and real property damage and implying that there are certain bad faith incentives motivated by the prospect of saving money) (on file with the Washington and Lee Law Review).

203. There is already a trend of alienating the policyholder during claims adjustment, which could reach the point of no return if drones are introduced into the process. See *id.* (discussing the current trend of claims adjusters allowing policyholders to “self-assess” their property during a claim, providing no feedback, and then not informing them when they have missed a potential award).

204. See generally *supra* Part IV (exploring the potential risks to policyholders through unregulated collection, use, and transfer of data via drones during risk assessment and claims adjustment).

205. See *supra* notes 85–86 and accompanying text (espousing several pro-drone arguments that laud the diversity of a typical commercial drone’s payload, their maneuverability, and the versatility of on-board cameras and mapping lasers).

206. See generally *supra* Part III (offering a primer on the technological capabilities of insurance drones and their roles operations in risk assessment and claims adjustment).

process must be hemmed within a desire to prevent these capabilities from aiding unfair discrimination.

One way to achieve this would be to institute time-based restrictions on how long insurers can access drone-gathered data or keep it on file.<sup>207</sup> Gregory McNeal's proposal for the use of drones in government and police operations applies this suggestion in a parallel context.<sup>208</sup> Making drone-gathered information more difficult to access as time passes prevents discriminatory redlining based on historical trends or outdated information.<sup>209</sup> If these restrictions are codified, there will be little room for individual modification by insurers.<sup>210</sup> This ensures consistency and predictability in enforcement and would provide reviewing entities with applicable standards of conduct for data access in unfair discrimination claims.<sup>211</sup> Regulations on data retention also decrease the likelihood of information on an insured and their property being improperly shared with third parties without their consent.<sup>212</sup> Additional regulations might focus on the methods of collection, processing, and storage of the data, such as software, operator access, flight patterns, and data transmission.<sup>213</sup> Courts

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207. See McNeal, *supra* note 155, at 18 (discussing the public's concern over potentially unlimited access to data gathered by drones that is placed in long-term storage, particularly within the context of government or police operations, and recommending time-based restrictions on that access).

208. See *id.* ("To protect against pervasive surveillance and warehousing of data about citizens, legislators should enact retention policies and procedures that make it more difficult for the government to access information as time passes.").

209. See *id.* at 18–19 (proposing various time-based restrictions on data access that would prevent the police or government from using intimate details or irrelevant historical data to draw conclusions in surveillance and analysis).

210. See *id.* at 18 ("While the specific duration of time and processes may be subject to debate, all procedures and timelines should be legislatively determined and therefore cannot be modified by individual agencies.").

211. See *supra* notes 41–44 and accompanying text (discussing the lack of consistency among state jurisdictions in standards of review for unfair discrimination claims).

212. See McNeal, *supra* note 155, at 18–19 (explaining how restrictions on the retention of data from drone operations, as well as automatic deletion procedures and protection from certain information release mandates, will necessarily keep private and sensitive information from falling into the hands of a party without consent of the individual).

213. See *id.* at 18 ("Legislators should adopt policies that address collection and retention of information in a way that focuses on the information that is

and legislators could then decide whether these considerations were adhered to in a particular discrimination claim and evaluate fairness using concrete policy, as opposed to vague statutory language.<sup>214</sup>

*c. Regulatory Devices Promoting Transparent Accountability*

By far, the most difficult piece of this puzzle is regulating the application of drone-collected data to insurers' underwriting formulas in order to prevent unfairly discriminatory redlining<sup>215</sup> and disparate impact.<sup>216</sup> While insurers often set their own assessment formulas within general parameters of the relevant state regulations,<sup>217</sup> a competent regulatory scheme must hold them accountable to policyholders. It is tempting to propose a blanket exclusion of certain types of data or usage, such as images and videos of the relevant property.<sup>218</sup> While this would be reassuring to policyholders, a balanced framework must allow insurers to retain some autonomy.<sup>219</sup> Therefore, a better suggestion may be to require transparency and accountability

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collected, how it is stored, and how it is accessed, rather than the particular technology used to collect the information.”).

214. See *supra* Part II (considering multiple examples of courts relying on vague or inadequate statutory language in evaluating the fairness of a particular practice, often resulting in very different interpretations).

215. See *supra* notes 60–61 and accompanying text (defining redlining as a situation where “the insurer charges higher rates or declines to write insurance for people who live in particular areas”); *supra* notes 130–133 and accompanying text (discussing modern examples of redlining and treatment of the practice by different jurisdictions).

216. See *supra* notes 45–49 (outlining the development and current applications of the Disparate Impact Rule).

217. See GARY M. COHEN, *NEW APPLEMAN ON INS. LAW LIB. ED.* § 8.02(1)(a) (2013) (stating that each state in the United States and Washington, D.C., are tasked with “regulating the business of insurance,” and describing various state regulatory structures addressing the insurance industry).

218. See McNeal, *supra* note 155, at 27–29 (stating that legislators “should be careful to not craft hasty legislation based on emotionally charged rhetoric,” and projecting the negative ramifications of overly broad, sweeping regulations on commercial drone use in an aerial surveillance context of any kind).

219. See *id.* at 28 (recommending that legislators enact regulations that balance legitimate aerial surveillance and drone uses within an industry against interests of the private individual subject to that surveillance).

measures on the part of insurers, such as regular publication regarding their usage of commercial drones and the data they gather.<sup>220</sup> McNeal suggests a similar requirement when discussing the use of drones in police operations, focusing on the publication of “usage logs.”<sup>221</sup> In the insurance context, policyholders concerned over the extent of drone operations in their risk assessment or the evaluation of a claim could simply examine those publications.<sup>222</sup>

Alternatively, insurers could prepare logs and give them only to the policyholder in cases where sensitive or personal information is involved.<sup>223</sup> As McNeal suggests, it might even be possible for insurers to outfit their drones with software that records these logs automatically, and allows their export to authorized parties.<sup>224</sup> This retains privacy for the individual and the agency, but still creates a record that reviewing courts could look to if an unfairly discriminatory result arose.<sup>225</sup> Accountability and transparency regulations might also counteract the potential for disparate impact discrimination; failures to heed policy could prove the causation element required for a successful claim.<sup>226</sup>

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220. *See id.* at 19 (“To hold law enforcement accountable, legislators should mandate that the use of all aerial surveillance devices (manned or unmanned) be published on a regular basis (perhaps quarterly) on the website of the agency operating the system.”).

221. *See id.* (“These usage logs should detail who operated the system, when it was operated, where it was operated (including GPS coordinates), and what the law enforcement purpose for the operation was.”).

222. *See id.* at 21 (“Just as a police helicopter high overhead can be ominous to those on the ground who are unaware of its purposes, the very idea of drones—of any kind—flying above American cities and towns might be foreboding to many lay persons.”).

223. *See id.* at 20 (discussing alternative publishing strategies where sensitive or personal information is involved in the log).

224. *See id.* at 19–20 (“Legislators may even mandate that unmanned systems operated in their jurisdictions come equipped with software that allows for the easy export of flight logs that contain this information.”).

225. McNeal discusses this benefit in an analogous context of United Kingdom police departments who publish their usage logs from helicopter and drone operations. *See id.* at 20 (describing police efforts in Islington and other British cities to publish helicopter usage logs to the public through Twitter and social media platforms, which has resulted in increased accountability, decreased public complaints, and more transparent operational standards).

226. To prove causation, policyholders would argue that the use, manipulation, or transfer of data through drone operations proximately caused a discriminatory result in ratings, assessment, or claims adjustment. *See Dana L.*

Where insurers may have used technology such as satellite imagery to quietly redline vast portions of land,<sup>227</sup> drone operations would be transparent. Their results would be open to examination, and insurers would be forced to prove that their considerations were within the bounds of reason and fairness.<sup>228</sup> The threat of accountability may prevent insurers from discriminating against regions based on geographic, economic, or even racial indicators drawn from drone-collected data.<sup>229</sup>

As far as risk assessment and claims adjustment procedures are concerned, some level of trust between insurers and policyholders remains necessary.<sup>230</sup> However, drawing back the veil on the use of drones in these processes ensures some level of accountability by insurers to policyholders in their operation of drones. Time-based restrictions, regulations on data retention and collection, and transparent accountability will serve as a solid foundation upon which to build that trust.<sup>231</sup>

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Kaersvang, *The Fair Housing Act and Disparate Impact in Homeowner's Insurance*, 104 MICH. L. REV. 1993, 2014 (2006) (examining the necessary steps to prove the causation element of a disparate impact claim, and various factors insurers consider such as crime rate, claims paid out, territorial boundaries, and the quality of municipal services).

227. See *supra* notes 136–139 and accompanying text (detailing a California-based insurer's use of satellite imagery to deny coverage to an entire zone of previously insured properties based on newly discovered proximity to flammable wild brush).

228. Recall that claims adjusters must conduct "reasonable" investigations to avoid sanctions for bad-faith practices. See *supra* notes 119–120 and accompanying text (describing the insurer's duty to conduct a "reasonable investigation" before denying a claim and potential consequences of the failure to do so).

229. Again, this notion returns to the idea of transparency and accountability regulations creating a record for courts to refer to where a policyholder claims drone operations are the cause of disparate impact or other class-based discrimination through insurance practices. See generally Kaersvang, *supra* note 226 (discussing the elements of a successful disparate impact claim, the procedure for proving it to a reviewing entity, and factors that insurers are more or less likely to consider based on vulnerability to a disparate impact claim and accountability for that effect).

230. See Kai-Uwe Schanz, *Reputation and Reputational Risk Management*, PALGRAVE MACMILLAN 377, 377–78 (2006), <https://www.jstor.org/stable/pdf/41952888.pdf> ("Clearly, for financial services in general, and for insurers in particular, the trust of policyholders and other stakeholders is a necessary condition for conducting business.").

231. See McNeal, *supra* note 155, at 28 (recommending that legislators pursue enhanced transparency measures and data protection procedures to balance the

*C. Entities Capable of Effectuating Regulatory Countermeasures*

With this framework in mind, the final task is to examine which entities, if any, may be appropriate to introduce these countermeasures, and how they might do so. Historically, the insurance industry has enjoyed a rare exclusion from federal regulatory efforts, instead relying overwhelmingly on state law to regulate their conduct and policies.<sup>232</sup> This has led to grave inconsistencies in standards of review and enforcement, as well as frustration from federal and industry officials.<sup>233</sup>

*1. States as Insurance Regulators*

For over 100 years, the Supreme Court has recognized the power of states to exercise “superintendence and control over the business of insurance” through statutory exercise of their regulatory and police powers.<sup>234</sup> Through state departments and insurance commissioners, states are generally responsible for licensing insurers, examining their books and records, and investigating claims of unfair practices.<sup>235</sup> States also have the

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interests of private individuals against the goals of insurers).

232. See COHEN, *supra* note 217 § 8.02(1)(a) (“Every state, and the District of Columbia, has an office in the executive branch that is charged with regulating the business of insurance. In some states, this office is a stand-alone Department of Insurance, while in others it is part of an agency with broader regulatory authority.”) (footnotes omitted).

233. See Gary M. Cohen, *Framework for the Regulation of the Insurance Industry—New Appleman on Insurance Law Library Edition, Chapter 8*, NEW APPLEMAN BLOG (Apr. 19, 2010, 1:42 PM), <http://www.lexisnexis.com/legal/newsroom/insurance/b/applemaninsurance/archive/2010/04/19/framework-for-the-regulation-of-the-insurance-industry.aspx> (last visited Oct. 1, 2016) (“Many in the industry, as well as the Treasury Department in its recent White Paper on regulatory reform, have criticized state regulation as inconsistent and outmoded, claiming that its lack of uniformity imposes an undue regulatory burden on market participants.”) (on file with the Washington and Lee Law Review).

234. See *German Alliance Ins. Co. v. Lewis*, 233 U.S. 389, 412, 414–15 (1914) (evaluating the legitimacy of state involvement in fire insurance ratings, discussing the historical trend of state involvement in “the business of insurance” dating back at least to 1837 in Massachusetts, and recognizing that it falls within the scope of the regulatory and police powers of the state).

235. See COHEN, *supra* note 217 § 8.02(2)(c) (outlining the standard administrative framework of state insurance departments, the role and powers of the insurance commissioner, licensing requirements, and investigation

authority to regulate rates to an extent, and may consider the “Model Laws” of the National Association of Insurance Commissioners (NAIC) for guidance, or adopt them.<sup>236</sup> Although state rating policies vary widely, their ultimate purpose remains as a lone bastion of consistency: “to ensure that rates not be excessive, inadequate or unfairly discriminatory.”<sup>237</sup> Beyond this, however, states are divided in their approaches to rating regulation; most employ either a “prior approval”<sup>238</sup> or a “file and use”<sup>239</sup> approach. The “flex rating” approach represents a hybrid of these two systems, and is used in a few jurisdictions.<sup>240</sup> Consequently, state departments and insurance commissioners have the power to promulgate regulations that implement insurance statutes enacted by the relevant legislature.<sup>241</sup> All this is to say that regulation in the insurance industry has historically run through the states. This characteristic has led to inconsistency and frustration, and the regulatory solution this Note proposes latches on to this growing unrest, championing greater federal involvement and more cohesion between regimes.<sup>242</sup>

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procedures).

236. *See id.* § 8.02(2)(g) (“State insurance commissioners also have well-established authority to regulate insurance rates. Nearly every state has some form of rate regulation, but the particulars vary state-by-state and by the line of insurance. NAIC model laws reflect this diversity.”).

237. *Id.*

238. *See id.* (“Under the ‘prior approval’ approach, insurers file proposed rates with the state’s insurance department and must wait a specified period of time before the rates become effective. During this period, the state may request revisions to the rates, support for the rates or may even disapprove the rates.”).

239. *See id.* (“Some states use a ‘file and use’ approach, which permits the insurer to use the filed rate unless, and until, the insurance department takes steps to disapprove the rate within a specified time.”).

240. *See id.* (“The ‘flex rating’ approach is a hybrid of the ‘prior approval’ and ‘file and use’ approaches. This permits insurers to file and then use their rates, provided their rates are within a specified range.”).

241. *See id.* § 8.02(3) (“Insurance departments have the authority to promulgate regulations implementing insurance statutes enacted by the legislature. The department’s rulemaking authority is generally subject to procedural limitations, including a requirement to provide notice to interested parties and the public and an opportunity to submit comments on the proposed regulations.”) (footnote omitted).

242. *See id.* § 8.07(9)(a) (“Frustration with the costs, delays, and inconsistent regulation that is believed to be inherent in state-based regulation led to calls for Congressional legislation that would establish a regime of federal regulation which would preempt state laws and regulations governing the business of

## 2. Potential Federal Regulators

“There has been increasing involvement by the federal government in the insurance industry, sometimes with the support of all or portions of the industry and sometimes despite its opposition.”<sup>243</sup> After the financial collapse of 2008, the proposal of several bills culminated in the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Act).<sup>244</sup> Among other reforms, the Act created the Federal Insurance Office (FIO) to study “the current state-based system of insurance regulation and the costs and benefits of the potential federal regulation of insurance.”<sup>245</sup> The FIO has the authority to monitor “all aspects of the insurance industry” and “the extent to which traditionally underserved communities and consumers, minorities and low-and moderate-income persons have access to affordable insurance products regarding all lines of insurance, except health insurance.”<sup>246</sup> After releasing a study on how to modernize and improve the system of insurance regulation in the United States (albeit well past its initial deadline),<sup>247</sup> the FIO has since taken on the role of an active market observer. The scope of its influence, however, clearly encompasses the integration of commercial drones into risk assessment and claims adjustment.<sup>248</sup>

The NAIC is another entity that is heavily involved with insurance regulation at the federal level.<sup>249</sup> Its stated mission is to

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insurance.”).

243. *Id.* § 8.07(1).

244. 111 P.L. 203, 124 Stat. 1376 (2010).

245. COHEN, *supra* note 217 § 8.702(1).

246. *Id.* § 8.702(10). This authority is limited in a few excepted categories, including health insurance and crop insurance, which are regulated by other entities. *See id.* (“The authority of the Office extends to all insurance lines except health insurance, long-term care insurance, with specified exceptions, and crop insurance.”); *see also* 31 U.S.C. § 313(d)(1)–(3) (defining the scope of the FIO’s regulatory power and specifically listing health and crop insurance as exceptions).

247. *See* COHEN, *supra* note 217 § 8.07(10)(c) (discussing the goals, consideration factors, deadlines, and subsequent impacts of the three FIO reports, including the report on modernization and improvement).

248. *See supra* note 246 (discussing the scope of the FIO’s authority under 31 U.S.C. § 313(d) and its limited exceptions).

249. *See* Cohen, *supra* note 233 (commenting on the NAIC’s role in insurance regulation and their recent push for uniformity between federal and state regulatory regimes).

“assist state insurance regulators, individually and collectively, in serving the public interest and achieving the following fundamental insurance regulatory goals in a responsive, efficient and cost effective manner, consistent with the wishes of its members.”<sup>250</sup> The NAIC is organized into six standing committees that address various areas of the insurance industry.<sup>251</sup> The primary method of influence for these committees is to create and approve “Model Laws” and “Model Regulations” addressing various topics within the industry.<sup>252</sup> These are non-binding unless a state specifically adopts them, but are promulgated to promote uniformity and influence policy.<sup>253</sup> “The use of model acts and regulations to promote uniformity has led to decidedly mixed results; there are some model laws which have been adopted by all of the states, while others have been adopted by relatively few.”<sup>254</sup>

### 3. Strengths and Weaknesses of Suggested Regulators

Fostering the cooperation and consistency between federal and state regulators is the key to effective implementation of any drone-centric regulatory framework.<sup>255</sup> An obvious suggestion is to task the NAIC with promulgating Model Regulations that address the use of drones in risk assessment and claims adjustment in particular.<sup>256</sup> Clear, consistent Model Regulations requiring minimum site visitation, responsible data practices, accountability, and transparency could provide much desired

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250. COHEN, *supra* note 217 § 8.05(2).

251. *See id.* §8.05(4) (describing each of the six standing committees of the NAIC, including the subjects of insurance that each committee covers).

252. *See id.* § 8.05(5) (“The primary way that the NAIC promotes uniformity and influences policy is through the creation and approval of its Model Acts and Model Regulations.”).

253. *See id.* (“These laws have no effect unless adopted by the legislatures of the respective states.”).

254. *Id.*

255. *See* McNeal, *supra* note 155, at 5 (exploring the background of the FAA and other federal agencies’ involvement in the integration of commercial drones into the national airspace, and discussing the need to create recommendations that synthesize state and local regulatory efforts with federal actions).

256. *See* COHEN, *supra* note 217 § 8.05(5) (“The primary way that the NAIC promotes uniformity and influences policy is through the creation and approval of its Model Acts and Model Regulations.”).

consistency and predictability for reviewers of drone-influenced insurance practices.<sup>257</sup> The main issue with this approach is that, like other model codes, the NAIC's Model Laws are not binding on states unless they expressly adopt them.<sup>258</sup> Therefore, while Model Regulations on insurance drones could provide consistent, persuasive authority for reviewing entities in cases of unfair discrimination, a lack of state participation may doom this option to relative ineffectiveness.<sup>259</sup>

Alternatively, the FIO could prove useful in propelling a regulatory framework forward at the federal level.<sup>260</sup> One way to involve them would be to propose an "optional charter" system.<sup>261</sup> First proposed by Congress in 2002 concerning life and property insurance underwriting, this method would create an "opt-in" regulatory system for insurers at the federal level.<sup>262</sup> The Charter would grant general regulatory authority to the FIO or another federal agency and impose minimum standards on the states, which would retain the responsibility of regulating ratings.<sup>263</sup> This homogenous federal regime could foster consistency across jurisdictions by creating a baseline of standards from which to

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257. See *supra* notes 190–254 and accompanying text (exploring minimum visitation requirements, data retention and time-based restrictions on access, and transparency and accountability measures, and connecting them as solutions to help courts evaluate potentially unfair discrimination in insurance practices).

258. See *supra* note 253 (discussing the non-binding character of NAIC Model Laws and Regulations).

259. See COHEN, *supra* note 217 § 8.05(5)(a) (explaining that efforts by the NAIC to encourage uniformity in matters related to consumer protection and other restrictive rating laws are often polarizing, and thus not attractive to most states).

260. See *id.* § 8.07(1) (describing the genesis of the FIO through the promulgation of the Dodd-Frank Act in 2010).

261. See *id.* § 8.07(9)(b) (“[An optional federal charter] would permit national insurance companies to choose whether to be regulated by the federal government or by the states, much as banks can, under some circumstances, choose whether to be state-regulated thrifts or federally chartered savings and loans.”).

262. See *id.* (“[The Charter] would have created an Office of National Insurers, a new federal agency under the Treasury Department, and established an optional federal charter for national insurers to underwrite both life and property/casualty insurance.”).

263. See *id.* (“The federal regulator would have had general regulatory authority over solvency and policy forms, but rate regulation would have been left to the states. The states would still have licensed producers, subject to minimum federal standards.”).

draw during evaluations of discriminatory insurance practices resulting from drone-based operations.<sup>264</sup> If legislators could gather enough support, they could even replace the “optional” nature of the charter with codified mandatory minimums that would apply to all states.<sup>265</sup> It is possible that the “opt-in” characteristic could relegate the FIO to a similar “persuasive” position as discussed in the NAIC example.<sup>266</sup> At a minimum, however, either option creates a persuasive regulatory platform addressing the risks of unfairly discriminatory insurance practices resulting from insurers’ use of drones.<sup>267</sup> This still accomplishes the goal of providing states with intelligible guidance, and promotes uniformity among the jurisdictions.

It is unlikely that states will ever be completely stripped of the responsibility to regulate ratings and combat unfair discrimination.<sup>268</sup> Instead, progress is more likely to be found in sponsoring a cohesive regulatory approach between the federal and state levels.<sup>269</sup> A system of federal minimums addressing specific concerns like interpersonal contact, data security, transparency, and accountability could achieve this and counteract the

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264. *See id.* (explaining that the role of the optional charter was to provide state regulatory bodies with common policy considerations when generating their own rating regulations).

265. This would probably take more convincing, as Congress has failed thus far to pass even the original optional structure, due to state tensions over perceived pressure on states to comply. *See* ETTI BARANOFF ET AL., 1 ENTERPRISE AND INDIVIDUAL RISK MANAGEMENT 326 (2012) (discussing the evolution of legislation that “added fuel to the debate of state versus federal insurance regulation” and why the optional federal charter and certain other provisions did not make the final versions of various laws).

266. *See supra* notes 258–259 and accompanying text (delineating the inherent problem of an NAIC-based regulatory solution stemming from the fact that NAIC Model Regulations are not binding on states unless those states expressly adopt them).

267. *See generally supra* Part II (discussing the current inconsistency and lack of coherent authority for courts to follow in unfair discrimination evaluations, and the need for better sources of guidance).

268. *See* BARANOFF, *supra* note 265, at 332 (“The state insurance commissioners have extensive power in approving policy forms and controlling the rates for insurance.”).

269. *See id.* at 326–27 (discussing the ongoing debate between federal and state regulation of insurance, the relatively small size of state regulatory offices, inadequacies in administration that can result from those deficiencies, and arguments that increased federal involvement would alleviate this).

discriminatory potential of drone operations.<sup>270</sup> Whether in the form of NAIC Model Regulations or an FIO Charter<sup>271</sup>—whether optional, persuasive, binding, or instructive—a framework that addresses these concerns at the federal level will positively influence state policies. The resulting structure will be more consistent, predictable, and reliable for everyone involved: insurers, policyholders, and reviewing courts and agencies.<sup>272</sup>

In summation, the current regulatory landscape of the insurance industry is inadequate to address the risks of unfairly discriminatory insurance practices advanced by commercial drone integration.<sup>273</sup> The best method for implementing an adequate solution is to increase involvement at the federal level to promote synergy among the states.<sup>274</sup> Specifically, such a framework should require minimum visitation by human agents during risk assessment and claims adjustment.<sup>275</sup> In addition, it should

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270. See generally *supra* notes 190–255 and accompanying text (offering these countermeasures as a proposed regulatory framework to combat a potential rise in unfairly discriminatory practice as a result of commercial drone operations by insurers).

271. See *supra* notes 252–254 and accompanying text (describing the NAIC’s role in insurance regulation and their process of issuing Model Regulations to encourage uniformity among jurisdictions); *supra* notes 261–264 (hypothesizing the construction of an “optional charter” regime under the FIO, and its benefits as persuasive, or perhaps binding, authority).

272. Compare this conclusion to the one McNeal draws from his regulatory proposal to legislators addressing government and police drone use. See McNeal, *supra* note 155, at 28 (concluding that a regulatory approach that focuses on cooperation between federal and state jurisdictions, limits “pervasive surveillance” through restrictions on access to and retention of data, and encourages transparency and accountability by the operator, is the best approach to the integration of drones).

273. See Maj. Stephen Maddox & Capt. David Stuckenberg, *Drones in the U.S. National Airspace System: A Safety and Security Assessment*, HARV. L. SCH. NAT’L SECURITY J. (Feb. 24, 2015, 10:53 AM), <http://harvardnsj.org/2015/02/drones-in-the-u-s-national-airspace-system-a-safety-and-security-assessment/> (last visited Oct. 1, 2016) (“Presently, drone integration is problematic due to regulatory impediments on their operations and the resultant political climate.”) (on file with the Washington and Lee Law Review).

274. See COHEN, *supra* note 217 § 8.07(10)(c) (discussing the mission of the FIO and the Dodd-Frank Act, both of which place an emphasis on an increased federal role in insurance regulation as a response to growing unrest with the lack of uniformity in regulation and enforcement between states).

275. See *supra* notes 200–203 (proposing minimum human visitation requirements for claims adjustment, and exploring the potential implementation strategies and benefits of them as a countermeasure to discriminatory practices

address the collection, use, storage, and transmission of data, perhaps through time-based and retention restrictions.<sup>276</sup> Finally, that framework must hold insurers accountable for their drone usage by mandating transparency, possibly through required publications and disclosures of their operations.<sup>277</sup> This solution could be implemented in multiple ways, including NAIC Model Regulations<sup>278</sup> or an optional charter underneath the FIO.<sup>279</sup> At minimum, either of these options will produce persuasive authority for reviewing courts and policymakers concerned with the nexus between insurance drone integration and unfairly discriminatory practices.<sup>280</sup>

## VI. Conclusion

The integration of drones into risk assessment and claims adjustment operations presents a formidable challenge to individuals who seek to prevent insurers from using drones to discriminate unfairly. The addition of commercial drones to the toolset of insurance underwriters is akin to introducing the first automobile into a small town with horse drawn carriages. What do you do with it? What are the rules? It is easy to propose that initial drone operations and products need to “fit in” the existing

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arising from the use of drones by insurers).

276. See *supra* notes 204–213 (discussing the benefits of potential regulations addressing time, retention, and transfer of data gathered by drones during risk assessment and claims adjustment proceedings).

277. See *supra* notes 214–229 (outlining several arguments in favor of imposing transparency and accountability related regulations on insurers and comparing that proposal to one made in the context of government and police uses of drones for aerial surveillance).

278. See generally COHEN, *supra* note 217 § 8.05 (describing the organization, mission, and activities of the NAIC, including their promulgation of Model Laws and Regulations for the purpose of promoting uniformity among state jurisdictions in insurance regulation).

279. See *id.* § 8.07(10) (laying out the creation of the FIO through the Dodd-Frank Act, its mission, and optional charter provisions that were proposed with its original legislation); BARANOFF, *supra* note 265, at 326 (describing the optional federal charter proposal for insurance regulation, and weighing its attractiveness in the overall debate between federal and state regulation).

280. See generally *supra* Part V (discussing repeatedly the operation of the NAIC and FIO, the potential persuasive and binding authority that they may promulgate, and their role in the framework proposed by this Note).

framework of established regulations in the industry. The problem—as this Note has explained—is that efforts to establish this foundation are moving at a dangerously slow pace. In fact, entrusting the government at any level to efficiently create a set of rules to operate within may be downright Pollyannaish. Regardless, a very real threat exists of growth in discriminatory practices within the insurance industry, as the powerful capabilities of drone systems continue to reveal themselves.

It is necessary, therefore to address this inevitable industrial revolution with a responsible, cohesive, and organized approach. With an understanding of the current landscape of insurance regulation and commercial drone integration, it is possible to identify the risks these drones pose to policyholders. Chief among these is the concern that unregulated drone use in risk assessment and claims adjustment will lead to a rise in unfairly discriminatory insurance practices. A regulatory framework that fosters coordination between federal and state governments can combat these risks. This cooperative effort will provide consistency and reliable authority for reviewing courts and policymakers to lean on when evaluating claims of unfair discrimination.

Hearken back to our friend Ethel Baxter. If nobody is willing to identify these potential abuses and propose a workable solution, to whom will she turn? As a society, are we prepared to let Ethel and others be shut out from the risk assessment and claims processes completely? Have we decided that digital imaging, laser-mapping, inflexible algorithms, and robotic recommendations should replace a real human being? Will we allow entire communities to be exposed to unchecked informational sorties by fleets of pre-programmed insurance agents? These questions leave us on the brink, a regulatory tipping point between the balances of efficiency and fairness. We stare now into the maw of a great wave that will take us in one of two directions: forward, to a society where even machines treat policyholders fairly, or somewhere darker, where the true goals of the process remain uncertain.