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## Beat the Heat: Texas's Need to Reduce Summer Temperatures in Offender Housing

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## COMMENT

### **BEAT THE HEAT: TEXAS’S NEED TO REDUCE SUMMER TEMPERATURES IN OFFENDER HOUSING**

**MARY E. ADAIR\***

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## I. INTRODUCTION

Excessive and prolonged high temperatures during Texas summers can have dangerous consequences and cause concern for those who face the heat.<sup>1</sup> Texas, in particular, has experienced an increase in “prolonged excessively hot temperatures” over the course of recent decades.<sup>2</sup> Temperatures regularly reach over 90 degrees during Texas summer months,<sup>3</sup> with some days reaching over 100 degrees.<sup>4</sup> Exposure to high temperatures can cause a number of heat-related illnesses, ranging from mild ailments, such as heat cramps, to life-threatening heat strokes.<sup>5</sup>

Texas governmental agencies recognize the potential dangers of increasingly high temperatures and issue warnings to the public when temperatures escalate into triple digits.<sup>6</sup> While members of the general population have the freedom to take precautions to protect themselves against high temperatures,<sup>7</sup> this is not the case for most offenders who are

1. See Ali Stevens, *Ready for Summer Heat? Study Finds New Primary Driver of Extreme Texas Heat Waves*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. RES. (June 28, 2018), <https://research.noaa.gov/article/ArtMID/587/ArticleID/2366/Ready-for-summer-heat-Study-finds-new-primary-driver-of-extreme-Texas-heat-waves> [<https://perma.cc/WT5Q-Z7US>] (noting rising concerns in Texas where summer can be “dangerously hot”).

2. See *id.* (emphasizing the increased threat of dangerously hot temperatures as “heat waves have become more frequent in recent decades” in Texas).

3. See *Comparative Climate Data for the United States Through 2015*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. RES., <https://www1.ncdc.noaa.gov/pub/data/ccd-data/CCD-2015.pdf> [<https://perma.cc/2BR9-ZB4T>] [hereinafter *Comparative Climate Data*] (showing selected Texas cities as experiencing over 20 days per month of temperatures over 90 degrees from June until August, while some areas in Texas experienced temperatures in the 90s from April through October in 2015).

4. See Linda Lam, *The Triple-Digit Club: Here's How Often Your City Reaches 100 Degrees*, WEATHER CHANNEL (June 7, 2017, 2:00 PM), <https://weather.com/news/climate/news/100-degree-temperatures-us-cities-average-most-records> [<https://perma.cc/4U89-938U>] (identifying Dallas, El Paso, Houston, and Brownsville as having experienced triple digit temperatures during summer months).

5. See Scott Kinkade & Megan Warhol, *Beat the Heat: Identification and Tx of Heat-Related Illness*, 67 J. FAM. PRAC. 468, 468–69 (2018) (identifying heat cramps as a benign heat-related illness resulting from dehydration and loss of salt and recognizing heat stroke as “the most severe form of heat-related illness” resulting in “an inability to maintain a normal body temperature”).

6. See *DPS Warns Texans of Safety Concerns in Summer Heat*, TEX. DEP'T PUB. SAFETY (July 16, 2018), [http://www.dps.texas.gov/director\\_staff/media\\_and\\_communications/pr/2018/07\\_16a](http://www.dps.texas.gov/director_staff/media_and_communications/pr/2018/07_16a) [<https://perma.cc/CGZ9-CKNJ>] (“The Texas Department of Public Safety (DPS) is reminding Texans to take extra safety precautions as temperatures and heat indices continue to reach 100 degrees and above in many parts of the state.”).

7. See *Tips for Preventing Heat-Related Illness*, CTR FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/disasters/extremeheat/heatips.html> [<https://perma.cc/W5UZ-F3MM>] (recommending people without air conditioning in their homes go to public places with air conditioning to prevent heat-related illnesses).

incarcerated within the Texas Department of Criminal Justice (TDCJ).<sup>8</sup> Of the 109 prison units or state jails in Texas,<sup>9</sup> few facilities offer air-conditioning or any equivalent in offender housing areas.<sup>10</sup> As of October 2018, the TDCJ housed 141,587 offenders,<sup>11</sup> while only providing a limited number of air-conditioned beds.<sup>12</sup> Incarcerated offenders are “one of society’s most discrete and disenfranchised minorities”<sup>13</sup> who are at the mercy of the environmental effects of their provided living conditions.<sup>14</sup> “As temperatures rise . . . correctional departments can expect to see an increase in heat-based litigation.”<sup>15</sup>

This comment discusses how the TDCJ’s lack of appropriate remedies to reduce heat in offender housing areas likely violates constitutional protections dealing with conditions of prison confinement. Part I looks at the legal history of the Eighth Amendment’s Cruel and Unusual Punishment Clause and how it has come to encompass conditions of confinement in the prison system, including temperatures in offender housing areas.

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8. See Jeff Edwards & Scott Medlock, *Air Conditioning Is a Human Right*, TIME (July 21, 2016), <http://time.com/4405338/air-conditioning-human-right/> [<https://perma.cc/S8Q3-898W>] (reporting temperatures in the offender housing area of Hutchins State Jail “reached 102 degrees by early afternoon, and that the heat index inside was likely 123” degrees shortly before an offender died from a heat stroke).

9. See *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*4 (S.D. Tex. July 19, 2017) (identifying 109 custodial facilities within the state of Texas operated by the Texas Department of Criminal Justice).

10. See Gabrielle Banks, *Expert: Prison Could be Cooled for \$100K; Texas Facility Says It Doesn’t Have Funds Available*, SAN ANTONIO EXPRESS-NEWS (June 21, 2017, 9:46 PM), <https://www.expressnews.com/news/local/article/Expert-Prison-could-be-cooled-for-100K-Texas-11237969.php> [<https://perma.cc/PA29-SQJV>] (stating most TDCJ facilities do not provide air conditioning in offender housing areas).

11. *Texas Prison Inmates*, TEX. TRIB., <https://www.texastribune.org/library/data/texas-prisons/> [<https://perma.cc/F2M9-LFXB>].

12. See Jolie McCullough, *Judge Approves Settlement Mandating Air Conditioning at Hot Texas Prison*, TEX. TRIB. (May 8, 2018), <https://www.texastribune.org/2018/05/08/settlement-air-condition-hot-texas-prison-gets-final-judicial-approval/> [<https://perma.cc/HU95-M2HX>] (identifying 75% of Texas’s state prisons and jails have uncooled inmate housing).

13. *Cole*, 2017 WL 3049540, at \*1.

14. See Brenna Helppie-Schmieder, Note, *Toxic Confinement: Can the Eighth Amendment Protect Prisoners From Human-Made Environmental Health Hazards?*, 110 NW. U. L. REV. 647, 661 (2016) (“Prisoners are uniquely vulnerable to the environmental conditions around them for the simple reason that they cannot choose where they live. Nonprisoners can, and often do, modify their homes based on their environment. In hot climates, people can buy air conditioners and fans.”).

15. DANIEL W. E. HOLT, HEAT IN US PRISONS AND JAILS 33 (2015), [https://web.law.columbia.edu/sites/default/files/microsites/climate-change/holt\\_-\\_heat\\_in\\_us\\_prisons\\_and\\_jails.pdf](https://web.law.columbia.edu/sites/default/files/microsites/climate-change/holt_-_heat_in_us_prisons_and_jails.pdf) [<https://perma.cc/T7N7-E2CS>].

Part II examines the current mitigating measures implemented in the TDCJ to battle excessive heat and how such remedies do not expel the constitutional violations created by extreme temperatures in prisons. Part II also looks at the physical impact of excessive heat on healthy individuals as well as persons who are more susceptible to heat-related illnesses. Finally, Part II discusses how the TDCJ's future plans of providing air conditioning on two units will not sufficiently safeguard the TDCJ from further claims of heat-related constitutional violations.

Part III discusses what other jurisdictions have done to provide cooler housing areas for incarcerated offenders in both prisons and jails. Part IV explains how providing air conditioning in TDCJ offender housing areas is the most effective remedy to the constitutional violations related to excessive heat. Part IV also provides and discusses some additional measures the TDCJ can implement to reduce the costs related to installing and running air conditioning systems in existing facilities.

## II. HISTORICAL OVERVIEW

### A. *Background of the Eighth Amendment Cruel and Unusual Punishment Clause*

The Eighth Amendment prohibits the infliction of cruel and unusual punishments.<sup>16</sup> “[T]he Constitution does not mandate comfortable prisons,”<sup>17</sup> but it does not permit inhumane ones.<sup>18</sup> While the Eighth Amendment was ratified in the Bill of Rights in 1791,<sup>19</sup> the exact scope of the Cruel and Unusual Clause was not addressed until the mid-twentieth

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16. U.S. CONST. amend. VIII.

17. *Rhodes v. Chapman*, 452 U.S. 337, 349 (1981) (holding two offenders housed in a single cell did not amount to cruel and unusual punishment under the Eighth Amendment). *Rhodes* brought the constitutionality of prison conditions to the Supreme Court for the first time. *Id.* at 344–45. The Court acknowledged that while judges have the responsibility to “scrutinize claims of cruel and unusual confinement,” judges are not to assume legislatures and prison officials disregard constitutional requirements or “the perplexing sociological problems of how best to achieve the goals of the penal function in the criminal justice system: to punish justly, to deter future crime, and to return imprisoned persons to society with an improved change of being useful, law-abiding citizens.” *Id.* at 352.

18. *See Farmer v. Brennan*, 511 U.S. 825, 832 (1994) (“The [Eighth] Amendment . . . imposes duties on [prison] officials, who must provide humane conditions of confinement; prison officials must ensure that [offenders] receive adequate food, clothing, shelter, and medical care, and must ‘take reasonable measures to guarantee the safety of the [offenders].’”).

19. Raff Donelson, *Who Are the Punishers?*, 86 UMKC L. REV. 259, 274 (2017).

century.<sup>20</sup> The Eighth Amendment “draw[s] its meaning from the evolving standards of decency that mark the progress of a maturing society”<sup>21</sup> and “embodies ‘broad and idealistic concepts of dignity, civilized standards, humanity, and decency.’”<sup>22</sup> Its protection is not limited to barbarous or torturous punishment, as the Eighth Amendment prohibits “unnecessary and wanton infliction of pain” and grossly disproportionate punishment compared “to the severity of the crime.”<sup>23</sup> The Eighth Amendment also extends protection to offenders from inhumane living conditions.<sup>24</sup> Additionally, the Eighth Amendment’s protection “reache[s] ‘legislatures in authorizing sentences,’ ‘judges imposing them,’ the ‘executioner,’ and those responsible for ‘conditions of confinement.’”<sup>25</sup>

#### B. *Extreme Temperatures as a Prison Condition and the Eighth Amendment*

In order to succeed in a claim of inhumane conditions, offenders must successfully demonstrate: (1) there is a serious risk to health or safety, and (2) prison officials showed deliberate indifference to that risk.<sup>26</sup> The “serious risk” prong is an objective standard, while deliberate indifference is subjective.<sup>27</sup> While offenders need not wait until they have come into actual harm before they have a viable claim,<sup>28</sup> offenders must show “the

20. *See Trop v. Dulles*, 356 U.S. 86, 99 (1958) (“The exact scope of the constitutional phrase ‘cruel and unusual’ has not been detailed by this Court.”); *Helppie-Schmieder*, *supra* note 14, at 652 (emphasizing the Cruel and Unusual Clause was not initially relied upon after its inception).

21. *Trop*, 356 U.S. at 101; *see Gregg v. Georgia*, 428 U.S. 153, 173 (1976) (“[A]n assessment of contemporary values concerning the infliction of a challenged sanction is relevant to the application of the Eighth Amendment.”).

22. *Estelle v. Gamble*, 429 U.S. 97, 102 (1976) (quoting *Jackson v. Bishop*, 404 F.2d 571, 579 (8th Cir. 1968)).

23. *See Gregg*, 428 U.S. at 171–73 (discussing the proportionality between the crime and the offense as well as the factors considered to determine if punishment is excessive).

24. *See Helling v. McKinney*, 509 U.S. 25, 29–30 (1993) (stating “the Eighth Amendment applies to conditions of confinement that are not formally imposed as a sentence for a crime . . .”); *Gates v. Cook*, 376 F.3d 323, 332 (5th Cir. 2004) (“The treatment a prisoner receives in prison and the conditions under which he is confined are subject to scrutiny under the Eighth Amendment.”).

25. *Donelson*, *supra* note 19, at 261 (quoting *Johnson v. Glick*, 481 F.2d 1028, 1032 (2d Cir. 1973)).

26. *See Farmer v. Brennan*, 511 U.S. 825, 837–38 (1994) (holding prison officials must be aware of a substantial risk of harm and disregard the risk); *see also Wilson v. Seiter*, 501 U.S. 294, 303 (1991) (recognizing the applicability of the “deliberate indifference” standard to prison conditions).

27. *Wilson*, 501 U.S. at 298.

28. *See Helling*, 509 U.S. at 33 (holding prison authorities could not be deliberately indifferent to future “serious illness and needless suffering” when looking at the possible negative future health effects offenders may experience due to exposure to second hand smoke).

future injury is serious, is likely to occur, and that it 'violates contemporary standards of decency to expose *anyone* unwillingly to such a risk.'"<sup>29</sup> The deliberate indifference standard requires prison officials to be aware of and disregard the serious risk of harm.<sup>30</sup>

Previous prison condition lawsuits recognized the Eighth Amendment requires "prison officials must ensure that inmates receive adequate food, clothing, shelter, and medical care, and must 'take reasonable measures to guarantee the safety of the inmates[.]'"<sup>31</sup> Over time, litigation regarding prison conditions has demonstrated that exposure to extreme temperatures within offender housing areas can be considered unconstitutionally cruel and unusual punishment.<sup>32</sup>

Texas Department of Criminal Justice officials are no strangers to heat-related litigation.<sup>33</sup> Both family members of offenders who have died from heat-related conditions within the TDCJ<sup>34</sup> and offenders who were subjected to extreme temperatures while incarcerated have brought lawsuits

29. Helppie-Schmieder, *supra* note 14, at 668–69 (quoting *Helling v. McKinney*, 509 U.S. 25, 36 (1993)).

30. *See Farmer*, 511 U.S. at 837 (stating "the official must both be aware of facts from which the inference could be drawn that a substantial risk of serious harm exists, and he must also draw the inference.").

31. *Id.* at 832 (quoting *Hudson v. Palmer*, 468 U.S. 517, 526–527 (1984)).

32. *See Wilson*, 501 U.S. at 304 (noting a combination of conditions could establish a violation of the Eighth Amendment when such conditions produce "the deprivation of a single, identifiable human need such as food, warmth, or exercise—for example, a low cell temperature at night combined with a failure to issue blankets"); *Ball v. LeBlanc*, 881 F.3d 346, 348 (5th Cir. 2018) (reaffirming that housing heat susceptible offenders in extreme heat, without mitigating measures, violates the Eighth Amendment); *Graves v. Arpaio*, 623 F.3d 1043, 1049 (9th Cir. 2010) (holding that housing offenders who take psychotropic medication that make the offenders more susceptible to heat-related illnesses is a violation of the Eighth Amendment); *see also Helppie-Schmieder*, *supra* note, 14, at 658 ("[S]everal courts have found that unmitigated excessive heat can constitute or contribute to unconstitutional prison conditions.").

33. *See Yates v. Collier*, 868 F.3d 354, 360 (5th Cir. 2017) ("TDCJ officials are, or have been, defendants in numerous other cases alleging Eighth Amendment violations based on excessive heat in prison."); *Blackmon v. Garza*, 484 F. App'x 866, 874 (5th Cir. 2012) (reversing the district court's decision to grant judgment as a matter of law for TDCJ officers in a heat-related suit); *Martone v. Livingston*, No. 4:13-CV-3369, 2014 WL 3534696, at \*17 (S.D. Tex. July 16, 2014) (allowing proceedings to continue for suit brought after a heat-related death in the TDCJ).

34. *See Webb v. Livingston*, 618 F. App'x 201, 204 (5th Cir. 2015) ("This consolidated appeal arises from the heat-related deaths of five prisoners who died while housed in facilities operated by the Texas Department of Criminal Justice (TDCJ)."). Since 1998, a minimum of twenty-three men lost their lives while incarcerated in the TDCJ because of excessive heat. *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*1 (S.D. Tex. July 19, 2017).

against the TDCJ.<sup>35</sup> Such litigation prompted the TDCJ to implement mitigating measures to combat excessive heat within offender housing areas, including access to ice water, cool-down showers, fans, relaxed dress code, and access to respite areas.<sup>36</sup> Litigation also prompted the TDCJ to create and implement new policies in how correctional officials and officers respond to extreme temperatures in offender housing areas.<sup>37</sup>

In *Cole v. Collier*,<sup>38</sup> a federal district court found the mitigating efforts implemented by the TDCJ were often ineffective and did not adequately prevent “serious [risk of] injury or death,” especially when dealing with heat-sensitive offenders “who suffer from conditions or take medications that impede the body’s ability to regulate its temperature.”<sup>39</sup> Based on these findings, the court ordered the TDCJ to “lower the temperature in the housing areas of heat-sensitive inmates . . . .”<sup>40</sup> The TDCJ and offenders entered into a settlement that included “permanently installing air conditioning at the Wallace Pack prison” pending legislative approval.<sup>41</sup> The settlement also outlined a process to identify which heat-sensitive offenders will receive one of the limited air-conditioned beds within the TDCJ.<sup>42</sup> The TDCJ has not only already violated the settlement agreement, but also attempted to prevent discovery of the settlement agreement

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35. See *Cole*, 2017 WL 3049540, at \*1 (granting a preliminary injunction regarding offender claims of cruel and unusual punishment because of excessive heat in their housing areas).

36. See *Yates*, 868 F.3d at 358 (“Up until this lawsuit was filed, TDCJ’s policy regarding mitigation measures remained largely unchanged, despite the heat-related injuries occurring within . . . Texas prisons.”); *Cole*, 2017 WL 3049540, at \*21–24 (summarizing TDCJ’s heat-mitigating measures and analyzing the effectiveness of each one).

37. Compare Tex. Dep’t of Criminal Justice, *Temperature Extremes in the TDCJ Workplace*, AD-10.64 (Nov. 10, 2008) (“The TDCJ shall establish guidelines to assist unit administration in adapting offender work assignments to temperatures in the work environment that cannot be controlled by the [TDCJ].”), with Tex. Dep’t of Criminal Justice, *Excessive and Extreme Temperature Conditions in the TDCJ*, AD-10.64 (Mar. 26, 2018) (“The TDCJ shall establish guidelines to assist unit administration in adapting offender housing areas and work assignments to temperatures that cannot be controlled by the TDCJ.”).

38. *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540 (S.D. Tex. July 19, 2017).

39. *Id.* at \*39.

40. *Id.* at \*46. It is important to note the court did not mandate lowering temperatures in all offender housing areas, just the housing areas of heat susceptible offenders. See *Taylor v. Collier*, No. 3:17-CV-0358, 2018 WL 3729571, at \*2 (S.D. Tex. Aug. 6, 2018) (“In fact, [the Court’s] ruling specifically declined to order the Pack Unit to lower temperatures in all housing areas, noting that federal statute limits the court’s ability to fashion injunctive relief and that injunctive relief must be narrowly drawn.”).

41. McCullough, *supra* note 12.

42. *Id.*



violations by misrepresenting facts to the offenders' attorneys and the court.<sup>43</sup>

### III. CURRENT HEAT-MITIGATING EFFORTS WITHIN THE TDCJ ARE NOT AN EFFECTIVE REMEDY

Offenders face additional hurdles when bringing lawsuits related to prison conditions, as courts are confided by the Prison Litigation Reform Act (PLRA) on the types of remedies the courts may grant.<sup>44</sup> Congress enacted the PLRA in an attempt to reduce the number of lawsuits filed by offenders in federal courts.<sup>45</sup> The PLRA provides courts "shall not grant or approve any prospective relief unless the court finds that such relief is narrowly drawn, extends no further than necessary to correct the violation of the Federal right, and is the least intrusive means necessary to correct the violation of the Federal right."<sup>46</sup> Additionally, the PLRA limits relief to plaintiffs in the lawsuit.<sup>47</sup>

Even when excessive heat has been found to produce conditions that violate the Eighth Amendment, some courts have stated the PLRA does not authorize air conditioning as an appropriate remedy.<sup>48</sup> Appropriate initial remedies may include directing cool air from correctional officers' pickets

43. See *Cole v. Collier*, No. 4:14-CV-1698, 2019 WL 6733002, at \*3 (S.D. Tex. Dec. 11, 2019) (stating TDJC "admitted that they had previously made several serious misrepresentations to both Class Counsel and this Court. Defendants' actions not only put class members' lives in danger, but also prevented discovery of these dangerous conditions.").

44. See 18 U.S.C. § 3626(a)(1)(A) (2010) (describing the guidelines courts are required to follow when determining appropriate relief in response to prison condition litigation).

45. See *Woodford v. Ngo*, 548 U.S. 81, 84 (2006) ("Congress enacted the Prison Litigation Reform Act of 1995 in the wake of a sharp rise in prisoner litigation in the federal courts.") (citations omitted).

46. § 3626(a)(1)(A); see *Yates v. Collier*, 868 F.3d 354, 369 (5th Cir. 2017) ("[T]he PLRA limits the scope of permissible prospective relief to that which is 'necessary to correct the violation of the Federal right of a particular plaintiff or plaintiffs . . .'" (quoting 18 U.S.C. § 3626(a)(1)(A))); *Graves v. Arpaio*, 623 F.3d 1043, 1050 (9th Cir. 2010) ("[T]he [PLRA] authorizes relief that is 'necessary to correct' the ongoing constitutional violation found by the district court." (quoting 18 U.S.C. § 3626(a)(1)(A))).

47. See § 3626(a)(1)(A) ("Prospective relief . . . with respect to prison conditions shall extend no further than necessary to correct the violation of the Federal right of a particular plaintiff or plaintiffs."); see also *Ball v. LeBlanc*, 792 F.3d 584, 599 (5th Cir. 2015) ("The PLRA limits relief to the particular plaintiffs before the court.").

48. See *Ball*, 792 F.3d at 599 (finding air conditioning as unnecessary in correcting an Eighth Amendment violation of excessive heat for inmates housed on death row).

into the offender housing areas, providing cool showers, access to ice and cool water, providing fans, and allowing access to air-conditioned areas.<sup>49</sup>

While the PLRA makes it more difficult for offenders to receive remedies as effective as air conditioning, such relief is not completely elusive.<sup>50</sup> Air conditioning is an appropriate remedy if other measures, such as providing ice water and access to air-conditioned areas, have been implemented but are found to be insufficient in correcting the constitutional violation.<sup>51</sup> The remedial measures implemented through the Excessive and Extreme Temperature Conditions in the TDCJ policy are likely not enough to alleviate the constitutional violations created by housing offenders in excessive heat, and therefore require more effective means to correct the violations.

#### A. *Conditions in TDCJ Offender Housing Areas*

While *Cole* gives the impression courts are more willing to rule in favor of reducing temperatures in offender housing areas, this is not the case when looking at court rulings on the subject as a whole. In *Taylor v. Collier*,<sup>52</sup> the court declined to issue an emergency preliminary injunction to keep housing areas in the C. T. Terrell Unit between a specified temperature range.<sup>53</sup> The court reasoned while similar conditions may have been present at the Terrell Unit as the Pack Unit, wherein the court ordered injunctive relief, *Cole* “specifically declined to order the Pack Unit to lower temperatures in all housing areas” and instead focused on providing cooler housing areas for offenders who were susceptible to heat-related illnesses.<sup>54</sup>

The settlement between the TDCJ and Pack Unit offenders “sets up a process in the future to identify [offenders] who may be medically sensitive to heat and house them” in an air-conditioned bed.<sup>55</sup> Offenders who are

49. *Id.* at 599; *see also* Ball v. LeBlanc, 881 F.3d 346, 353 (5th Cir. 2018) (emphasizing measures like providing ice water, fans, and cool showers are appropriate remedies to correct constitutional violations created by excessive heat in offender housing areas).

50. *See* Jones-El v. Berge, 374 F.3d 541, 544–45 (7th Cir. 2004) (upholding a district court’s order requiring a Supermax facility to progressively air condition cells as outlined in a consent decree).

51. *See* Cole v. Collier, No. 4:14-CV-1698, 2017 WL 3049540, at \*40 (S.D. Tex. July 19, 2017) (concluding mitigating measures implemented by the TDCJ were “insufficient to protect against a substantial risk of harm”).

52. *Taylor v. Collier*, No. 3:17-CV-0358, 2018 WL 3729571 (S.D. Tex. Aug. 6, 2018).

53. *Id.* at \*3 (explaining the plaintiff did not “allege a substantial risk” and therefore, injunctive relief could not be granted).

54. *Id.* at \*2.

55. McCullough, *supra* note 12.

found to be ineligible for one of the few air-conditioned beds will be forced to face the extreme summer temperatures in housing areas with only the heat-mitigating resources provided by the TDCJ.

Temperature alone is not the only factor that plays a role in how heat affects those who are exposed to it, as humidity also contributes to the overall heat index.<sup>56</sup> TDCJ policy defines heat index as “a measure of how hot it actually feels when the Relative Humidity (RH) is added to the actual air temperature.”<sup>57</sup> It feels hotter as either temperature or humidity rises, therefore, increasing the likelihood of experiencing heat-related illness.<sup>58</sup> As outlined in the National Weather Service’s Heat Index Chart, temperatures in the low 90s with as low as 40% humidity indicate conditions where “Extreme Caution” is recommended to prevent heat-related illnesses.<sup>59</sup> Temperatures during Texas summer months regularly reach into the mid-to-high 90s and, at times, surpass 100 degrees.<sup>60</sup> Many Texas prisons “were constructed using materials such as brick, metal, and glass, which conduct and retain heat.”<sup>61</sup> Temperatures in offender housing areas during the summer months can at times exceed outdoor temperatures,<sup>62</sup> and “[w]hen temperatures go over 90 degrees, the medical risk of heat stroke increases . . . .”<sup>63</sup>

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56. See Ann E. Carlson, *Heat Waves, Global Warming and Mitigation*, 26 UCLA J. ENVTL. L. & POL’Y 169, 173–74 (2008) (“A heat index is used to determine excessive heat, taking into account both temperature and humidity.”); *Heat Index*, NAT’L WEATHER SERV., <https://www.weather.gov/safety/heat-index> [<https://perma.cc/E5NK-KLRR>] (illustrating how it feels hotter as humidity increases).

57. Tex. Dep’t of Criminal Justice, *supra* note 37, at 2. The TDCJ’s definition of “heat index” mirrors that of the National Weather Service. See *Heat Index*, *supra* note 56 (“The Heat Index is a measure of how hot it really feels when relative humidity is factored in with the actual air temperature.”).

58. See *Heat Index*, *supra* note 56 (providing a chart mapping out the “[l]ikelihood of [h]eat [d]isorders” as the heat index increases).

59. *Id.*

60. See *Comparative Climate Data*, *supra* note 3, at 87–88, 96, 104, 112 (charting temperatures in Texas cities during the summer months).

61. UNIV. OF TEX. SCH. OF LAW, RECKLESS INDIFFERENCE: DEADLY HEAT IN TEXAS PRISONS 9 (2015), <https://law.utexas.edu/wp-content/uploads/sites/11/2015/04/2015-HRC-USA-Reckless-Indifference-Report.pdf> [<https://perma.cc/92UJ-MSFF>].

62. See *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*12 (S.D. Tex. July 19, 2017) (finding indoor temperatures exceeding 100 degrees in some housing areas of the Pack Unit that were hotter than the outdoor temperatures).

63. Edwards & Medlock, *supra* note 8; see *Heat Index*, *supra* note 56 (suggesting higher levels of caution be used to prevent heat disorders as the temperature increases).

The TDCJ implemented a number of mitigating measures to protect offenders from heat-related illnesses, such as providing access to ice water, fans, cool-down showers, and 24-hour access to respite areas.<sup>64</sup> These mitigating efforts may appear to provide some relief to offenders in housing areas with extreme heat, but each remedy offered by the TDCJ, individually and combined, is insufficient.

While drinking cool water is often cited as an effective measure to mitigate heat-related illnesses,<sup>65</sup> drinking too much water has its own health risks.<sup>66</sup> Overconsumption of water can dilute electrolytes and salt within the body, which can lead to serious side effects.<sup>67</sup> TDCJ officers are responsible for providing offenders with ice, but some offender reports indicate times when the ice contained dirt or other debris.<sup>68</sup>

Providing large or personal fans in an area with extreme heat is not recommended by the Center for Disease Control and Prevention as running fans do not prevent heat-related illnesses when temperatures reach the mid-90s.<sup>69</sup> Additionally, installing fans that also produce a light mist in offender housing areas can potentially increase risks to offenders in high-humidity areas of Texas.<sup>70</sup> Misting fans would “not cool the housing areas, but instead increase the humidity in an already-humid environment . . . .”<sup>71</sup>

64. Tex. Dep’t of Criminal Justice, *supra* note 37, at 9; see *Cole*, 2017 WL 3049540, at \*24 (defining respite as “the ability to spend time in an air-conditioned environment”).

65. See Barbara K. Bailes & Kathleen Reeve, *Prevention of Heat-Related Illness*, 3 J. FOR NURSE PRAC. 161, 167 (2007) (listing “[d]rink[ing] water before, during, and after outdoor activities” as a tip to help prevent heat-related illnesses); Shakoor Hajat et al., *Health Effects of Hot Weather: From Awareness of Risk Facts to Effective Health Protection*, 375 LANCET 856, 859 (2010) (ranking consumption of fluids as the third “[m]ost commonly provided heat-protection advice”).

66. See Hajat et al., *supra* note 65, at 859 (“Replacement of water without sodium has been blamed for causing an imbalance in body electrolytes . . .”).

67. See *Overhydration*, HEALTH LINE, <https://www.healthline.com/health/overhydration#causes> [<https://perma.cc/45PQ-CXKY>] (listing muscle weakness, unconsciousness, seizures, and coma as possible side effects of low sodium levels due to overhydration).

68. See UNIV. OF TEX. SCH. OF LAW, *supra* note 61, at 17 (“Ice, when it is provided, is sometimes filled with dirt and mosquitos . . .”).

69. See Hajat et al., *supra* note 65, at 860 (“Electric fans should not be used because they increase the rate of dehydration.”); *Climate Change and Extreme Heat: What You Can Do to Prepare*, CDC 15 (Oct. 2016) [hereinafter *Climate Change and Extreme Heat*], <https://www.cdc.gov/climateandhealth/pubs/extreme-heat-guidebook.pdf> [<https://perma.cc/3Y8X-FDAG>] (advising not to “[u]se an electric fan when the temperature is over 95°F”).

70. See *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*23 (S.D. Tex. July 19, 2017) (referencing the TDCJ’s expert who testified that “given the high humidity of the climate at the Pack Unit [misting fans] are not a good idea, as they simply increase the moisture in the air”).

71. *Id.*

While taking frequent cool baths or showers is recommended to combat the effects of extreme heat,<sup>72</sup> the court in *Cole* recognized “that cool-down showers are a less effective mitigating measure for preventing individuals from becoming overheated in the first place.”<sup>73</sup> Offenders must ask a correctional officer for permission to access cool-down showers.<sup>74</sup> The TDCJ policy provides correctional officers will allow “additional showers for offenders *when possible*.”<sup>75</sup> This language allows correctional officers the discretion to choose to deny an offender access to cool-down showers. Along with being required to request cool-down showers, offenders must also seek permission from correctional officers to access respite areas.<sup>76</sup> Multiple offenders in the TDCJ reported “they were regularly denied access to respite areas and cool-down showers” and, at times, were even threatened by prison officials when such requests were made.<sup>77</sup> Additionally, it is difficult for correctional officers to follow the requirements outlined in the 24-hour availability respite policy, especially when offenders in administrative segregation make requests to be placed in respite areas.<sup>78</sup> Correctional officers likely disregard requests to go to respite areas from administrative segregation offenders because the officers must personally escort each offender.<sup>79</sup> Even though the TDCJ has incorporated several different types of mitigating factors in the prison housing areas, the extreme

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72. Hajat et al., *supra* note 65, at 860.

73. *Cole*, 2017 WL 3049540, at \*22.

74. *Id.* at \*21.

75. Tex. Dep’t of Criminal Justice, *supra* note 37, at 9 (emphasis added). Also, access to cool showers is limited to when temperatures exceed 90 degrees. *Id.*

76. *See id.* at 8 (“Offenders may request access to a respite area 24 hours per day, seven days per week, even if they are not feeling ill at the time of the request.”).

77. Candice Bernd, *Officials Literally “Blow Hot Air” to Mitigate Heat in Texas Prisons*, TRUTHOUT (Oct. 6, 2018), <https://truthout.org/articles/officials-literally-blow-hot-air-to-mitigate-heat-in-texas-prisons/> [<https://perma.cc/7HEW-HBK8>].

78. “Administrative segregation . . . refers to offenders who shall be separated from the general population because they are dangerous, either to other offenders or staff, or they are in danger from other offenders.” TEX. DEP’T OF CRIMINAL JUSTICE, OFFENDER ORIENTATION HANDBOOK 6 (2017). “‘Administrative segregation’ is a non-punitive, maximum custody status involving the separation of an offender from general population for the purpose of maintaining safety, security, and order among general population offenders and correctional officers within the prison and the public.” TEX. DEP’T OF CRIMINAL JUSTICE, ADMINISTRATIVE SEGREGATION PLAN 1 (2012) [hereinafter ADMINISTRATIVE SEGREGATION PLAN].

79. *See* ADMINISTRATIVE SEGREGATION PLAN, *supra* note 78, at Attachment A (requiring offenders in administrative segregation be personally escorted); Bernd, *supra* note 76 (quoting “a corrections staffer who formerly headed the union that represents TDCJ guards . . . [stated] that under the current system, in which ag-seg [offenders] must be personally escorted to respite by guards, it is likely that some of those prisoners’ requests for respite will indeed be disregarded.”).

heat still has an effect on the offenders. This exposure to extreme temperatures creates a substantial risk to offender health and safety.

B. *Effect of Heat Exposure on the Body*

Exposure to extreme heat has led to “more deaths than any other weather-related hazard—more than hurricanes, tornadoes, or flooding.”<sup>80</sup> Heat exposure places pressure on a person’s body,<sup>81</sup> and “[h]eat-related illnesses can affect people of any age who are subjected to extreme heat and humidity regardless of physical fitness level or baseline health status.”<sup>82</sup> The core body temperature is typically maintained at 98.6 degrees.<sup>83</sup> A combination of heat naturally produced in the body plus the external environment determines core body temperature, meaning that core body temperature rises along with the external temperature.<sup>84</sup>

Acclimation to heat depends on the body’s ability to cool itself naturally.<sup>85</sup> A minimal increase in the core body temperature is enough to trigger internal thermoregulation.<sup>86</sup> The body reduces excessive heat through perspiration, “increased cardiac output, and redirection of blood flow to the skin.”<sup>87</sup> “As the external environment gets hotter and more humid, the body must work harder to cool itself . . .”<sup>88</sup> Additionally, a small increase in core body temperature can become life-threatening,<sup>89</sup> but heat-related illnesses can vary in severity.<sup>90</sup>

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80. *Climate Change and Extreme Heat*, *supra* note 69, at 11; *see* Edwards & Medlock, *supra* note 8 (“According to the National Weather Service, in an average year, heat kills more people than floods, lightning, tornadoes and hurricanes combined.”).

81. *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*12 (S.D. Tex. July 19, 2017).

82. Kinkade & Warhol, *supra* note 5, at 468.

83. Bailes & Reeve, *supra* note 65, at 162.

84. *Id.*

85. *See* Hajat et al., *supra* note 65, at 856 (discussing how the body adapts to both hot and cold environments).

86. *See* Bailes & Reeve, *supra* note 65, at 162 (noting an increase in less than one degree Celsius activates the thermoregulatory center).

87. Hajat et al., *supra* note 65, at 856.

88. *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*12 (S.D. Tex. July 19, 2017); *see* Bailes & Reeve, *supra* note 65, at 162 (explaining how the different natural methods of thermoregulation start to dissipate as either heat or humidity increases).

89. *See* Hajat et al., *supra* note 65, at 860 (“As little as a 3C increase in core body temperature can threaten life.”); *see also* Roy Scott, *Between Extremes Health Effects of Heat and Cold*, 123 ENVTL. HEALTH PERSP. A 275, A 277 (2015) (“High body temperature is associated with increased heart and respiratory rates and, at extreme levels, damage to the brain, heart, lungs, kidneys, and liver.”).

90. *See* Kinkade & Warhol, *supra* note 5, at 468 (discussing the most severe and less severe heat-related illnesses).

Heat exposure can result in milder forms of heat-related illnesses, such as heat cramps.<sup>91</sup> More severe forms of heat-related illnesses include heat exhaustion, which can progress into heat stroke.<sup>92</sup> Heat exhaustion prevents a person from actively working in the heat and can lead to weakness and collapse.<sup>93</sup> Individuals with heat exhaustion usually have a core body temperature of at least 100 degrees, but less than 104 degrees.<sup>94</sup> Heat exhaustion may progress into heat stroke if the core body temperature elevates to 104 degrees.<sup>95</sup> “Heat stroke is the most severe form of heat-related illness and can be life-threatening.”<sup>96</sup>

Some populations are at a higher risk for developing heat-related illnesses, such as children, the elderly, and individuals “who live in buildings without air conditioning.”<sup>97</sup> Certain health conditions, such as heart disease, obesity, diabetes, high blood pressure, lung disease, and psychiatric conditions can also make an individual more susceptible to heat-related illnesses.<sup>98</sup> Additionally, medications can also reduce heat tolerance, including diuretics, antihistamines, antipsychotics, antidepressants, beta

91. *Id.*; see Bailes & Reeve, *supra* note 65, at 164 (explaining heat cramps can be “[p]ainful calf or abdominal wall muscle cramps [that] occur as a result of profuse sweating, too little fluid intake, and a negative sodium balance.”). In the TDCJ policy, heat cramps are defined as “[p]ainful, intermittent, and involuntary muscle spasms following hard physical work in a hot environment” that usually occur “after heavy perspiring, and often beginning at the completion of hard physical work.” Tex. Dep’t of Criminal Justice, *supra* note 37, at 6.

92. See Hajat et al., *supra* note 65, at 857 (“Signs of heat-related illness in an individual often begin with heat exhaustion, which, if left untreated, might progress to heatstroke . . .”); but see Kinkade & Warhol, *supra* note 5, at 468 (recognizing heat stroke may develop without presenting signs or symptoms of milder forms of heat-related illness).

93. Kinkade & Warhol, *supra* note 5, at 468; see Cole, 2017 WL 3049540, at \*12 (“A person with heat exhaustion may experience chills, a headache, and/or muscle cramps, and may feel light-headed, thirsty, nauseated, weak, faint, and/or dizzy.”).

94. Bailes & Reeve, *supra* note 65, at 164. The TDCJ policy states symptoms of heat exhaustion include “[p]rofuse perspiration, weakness, rapid pulse, dizziness, and headaches; [c]ool skin, sometimes pale and clammy, with perspiration; [n]ormal or subnormal body temperature; and [p]ossible nausea, vomiting, and unconsciousness.” Tex. Dep’t of Criminal Justice, *supra* note 37, at 6–7.

95. Scott, *supra* note 89; see Hajat et al., *supra* note 65, at 857 (identifying the body temperature of 40 degrees Celsius, or 104 degrees Fahrenheit, as a clinical requirement of heat stroke).

96. Kinkade & Warhol, *supra* note 5, at 468. TDCJ policy states symptoms of heatstroke include “[i]ncreased body temperatures, which is uncontrolled, may lead to delirium, convulsions, seizures, and possible death. Medical care is urgently needed.” Tex. Dep’t of Criminal Justice, *supra* note 37, at 7.

97. *Climate Change and Extreme Heat*, *supra* note 69, at 12.

98. Bailes & Reeve, *supra* note 65, at 164. The TDCJ also recognizes certain comorbidities which may make offenders more susceptible to extreme heats. See TEX. DEP’T OF CRIMINAL JUSTICE, D-27.2, CORRECTIONAL MANAGED HEALTH CARE POLICY MANUAL, at Attachment B (2018) (listing cardiovascular disease, psychiatric conditions, asthma, diabetes, and other conditions as having potential the potential to reduce heat tolerance in offenders).

blockers, and anticonvulsants.<sup>99</sup> Offenders with these conditions or who take medications that make them more susceptible to heat-related illnesses have been provided increased protection through the court system against extreme heat.<sup>100</sup> While vulnerable populations, such as the elderly and children, are more susceptible to the effects of heat stroke, young and healthy individuals are also at risk when exposed to extreme heat and humidity.<sup>101</sup>

C. *Adding a Minimal Amount of Air-Conditioned Beds will not Adequately Protect the Offender Population*

The court in *Cole* specifically required the TDCJ to lower temperatures in the housing areas of heat-sensitive offenders at the Wallace Pack Unit.<sup>102</sup> After the court ordered this injunctive relief, the TDCJ entered into a settlement agreement stating it would not only air-condition the housing areas, but it would also create and implement a method to identify heat-sensitive offenders and place them in one of the few air-conditioned beds in the TDCJ.<sup>103</sup> Before the settlement, the agency only had 32,434 air-conditioned beds in offender housing.<sup>104</sup> These already air-conditioned beds were located in facilities or custody level housing areas that heat-sensitive offenders on the Pack Unit could not be transferred to.<sup>105</sup> Once

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99. See TEX. DEP'T OF CRIMINAL JUSTICE, *supra* note 98, at Attachment A (listing medications the TDCJ recognizes as associated with heat stress); see also K. Westaway et al., *Medicines Can Affect Thermoregulation and Accentuate the Risk of Dehydration and Heat-Related Illness During Hot Weather*, 40 J. CLINICAL PHARMACY & THERAPEUTICS 363, 363 (2015) ("Having a psychiatric illness and taking psychotropic medicines or having a cardiovascular or respiratory illness is associated with a significant increase in the risk of death during hot weather."). The TDCJ acknowledges "Lithium does not disrupt or interfere with the body's ability to regulate temperature, [but] if an offender treated with [L]ithium becomes dehydrated they are at an increased risk of [L]ithium toxicity." TEX. DEP'T OF CRIMINAL JUSTICE, *supra* note 98, at Attachment A.

100. See *Graves v. Arpaio*, 623 F.3d 1043, 1050 (9th Cir. 2010) (holding offenders who were more susceptible to heat-related illnesses because they took psychotropic medications needed to be housed in areas where temperatures were at or below 85 degrees); *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*46 (S.D. Tex. July 19, 2017) (requiring the TDCJ lower temperatures in heat-sensitive offenders' housing areas).

101. Kinkade & Warhol, *supra* note 5, at 468.

102. *Cole*, 2017 WL 3049540, at \*46.

103. McCullough, *supra* note 12.

104. *Cole*, 2017 WL 3049540, at \*34.

105. See *id.* (identifying 15,361 beds as either being segregation cells or on treatment facilities, 3,386 beds in female facilities, 4,274 beds in state jail facilities, 2,302 beds in transfer or pre-release facilities, and 3,229 beds for transient offenders, high-security offenders, or for safekeeping vulnerable offenders).



air-conditioned, pending legislative approval, the Pack Unit will add an additional 1,157 air-conditioned beds to that count.<sup>106</sup> The number of air-conditioned beds is likely to increase further since the TDCJ announced its decision to also air-condition the Hodge Unit,<sup>107</sup> adding an additional 989 beds.<sup>108</sup> Air conditioning both the Pack Unit and the Hodge Unit will bring the total count of air-conditioned beds to 34,580. Even with the additional air-conditioned beds, it is unlikely the TDCJ will be able to provide air conditioning to all heat susceptible offenders.

On average, each year, about 70,000 new offenders are taken into custody by the TDCJ, “many of whom have mental illness, chronic conditions and infectious diseases.”<sup>109</sup> Typically, the offender population has “higher rates of cardiac disease, high blood pressure, hepatitis C, diabetes and other chronic diseases,”<sup>110</sup> which potentially make offenders more heat susceptible.<sup>111</sup> The offender population with mental health issues, “such as major depressive disorder, bipolar disorder, schizophrenia and other psychotic disorders” is also rising.<sup>112</sup>

Additionally, the elderly population in the TDCJ is increasing.<sup>113</sup> Because offenders tend to physiologically age faster than those who are not incarcerated, the TDCJ recognizes anyone aged 55 and over as geriatric,

106. *Pack (P1)*, TEX. DEP'T CRIM. JUST., [https://www.tdcj.state.tx.us/unit\\_directory/p1.html](https://www.tdcj.state.tx.us/unit_directory/p1.html) [<https://perma.cc/CG5H-GKNJ>].

107. See Keri Blakinger & Gabrielle Banks, *Texas Prison System to Install Air Conditioning at Additional Unit*, LMTONLINE (Aug. 29, 2018, 7:05 PM), <https://www.lmtonline.com/news/houston-texas/article/Texas-prison-system-to-install-air-conditioning-13192364.php> [<https://perma.cc/22X2-9NMM>] (discussing the Texas Department of Criminal Justice's two million dollar plan to add air conditioning to another prison).

108. *Hodge (HD)*, TEX. DEP'T CRIM. JUST., [https://www.tdcj.state.tx.us/unit\\_directory/hd.html](https://www.tdcj.state.tx.us/unit_directory/hd.html) [<https://perma.cc/F8HE-RVNL>].

109. HEALTH & HUMAN SERVS. COMM'N, ANALYSIS OF CERTAIN HEALTHCARE DATA 8 (2018).

110. Tex. Dep't of Criminal Justice, *Aging Prison Population Drives Need for More Sheltered Housing*, 25 CRIM. JUST. CONNECTIONS 1, 1 (2018), [https://www.tdcj.state.tx.us/connections/2018JanFeb/images/JanFeb2018\\_agency\\_shelter.pdf](https://www.tdcj.state.tx.us/connections/2018JanFeb/images/JanFeb2018_agency_shelter.pdf) [[perma.cc/LXF6-5L66](https://perma.cc/LXF6-5L66)].

111. See TEX. DEP'T OF CRIMINAL JUSTICE, *supra* note 98 (identifying cardiovascular disease and diabetes as conditions that can reduce heat tolerance); Bailes & Reeve, *supra* note 65, at 164 (recognizing diabetes, hypertension, and other chronic diseases as conditions that can affect susceptibility to heat-related illnesses).

112. See HEALTH & HUMAN SERVS. COMM'N, *supra* note 109, at 9 (estimating a 40% increase in offenders with mental health issues since 2009).

113. See Tex. Dep't of Criminal Justice, *supra* note 110 (commenting on the near doubling of elderly offenders in the TDCJ in the last decade due to older people being incarcerated and more offenders serving longer sentences).

instead of the usual 65 years of age or older.<sup>114</sup> The TDCJ housed more than 19,000 elderly offenders at the end of 2017, which made up about 13% of the total offender population.<sup>115</sup> The elderly population alone outnumbers the proposed amount of potential air-conditioned beds the TDCJ will add. Considering the TDCJ was unable to re-house the heat-sensitive offenders from the Wallace Pack Unit to the 32,434 already air-conditioned beds,<sup>116</sup> it is unlikely the TDCJ will be able to create and implement a policy that identifies heat-sensitive offenders for the purpose of placing them in an air-conditioned bed, per the settlement agreement, without providing additional housing areas with air conditioning. Even if the TDCJ is able to implement a policy that identifies and places heat-sensitive offenders in air-conditioned beds, the remaining offenders and correctional officers will still be exposed to extreme heat.

While the elderly and those with chronic diseases are more susceptible to heat-related illnesses, young, healthy individuals can also be effected by extreme temperatures.<sup>117</sup> In one month, nineteen people in the TDCJ, both offenders and correctional officers, experienced heat-related illnesses.<sup>118</sup> Every prison in the TDCJ has air conditioning in some capacity, as wardens' offices, regional directors' offices, and correctional officers' stations are air-conditioned.<sup>119</sup> However, correctional officers and offenders are still unavoidably exposed to high temperatures and humidity.<sup>120</sup> Correctional officers are not granted the luxury of staying confined in the limited areas equipped with air conditioning, as they are responsible for patrolling the housing areas regularly.<sup>121</sup> To add to the

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114. *Id.*

115. *Id.*

116. *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*34–35 (S.D. Tex. July 19, 2017).

117. Bailes & Reeve, *supra* note 65, at 165 (asserting heat stroke to be “the third-leading cause of death among high school athletes”).

118. See Lauren McGaughy, *19 Treated for Heat-Related Illnesses in Past Month, Texas Prison Officials Say*, DALL. NEWS (Aug. 24, 2018, 12:45 PM), <https://www.dallasnews.com/news/crime/2018/07/30/10-treated-for-heat-related-illnesses-10-day-period-texas-prison-officials-say> [<https://perma.cc/L7EM-7S7P>] (“TDCJ policy requires [heat-related] incidents to be reported ‘when an employee or offender is diagnosed by a qualified medical provider with a heat-related illness and receives intravenous fluids, or is diagnosed with heat exhaustion or heat stroke.’”).

119. *McCollum v. Livingston*, No. 4:14-CV-3253, 2017 WL 608665, at \*1 (S.D. Tex. Feb. 3, 2017).

120. Tex. Dep’t of Criminal Justice, *TDCJ Activates Hot-Weather Precautions for Summer*, 25 CRIM. JUST. CONNECTIONS 1, 1 (2018), [https://tdcj.texas.gov/connections/2018JanFeb/benefits\\_vol25no3.html](https://tdcj.texas.gov/connections/2018JanFeb/benefits_vol25no3.html) [<https://perma.cc/3UHV-D75R>].

121. Edwards & Medlock, *supra* note 8.

grueling temperatures, correctional officers are often required to wear heavy uniforms with stab-proof vests.<sup>122</sup> In addition, correctional officers also battle with conditions that make them more sensitive to heat, such as “obesity, diabetes, high blood pressure, [and] even mental illness.”<sup>123</sup> Because of this, the correctional officers’ union started formally supporting offender heat-related lawsuits after reports surfaced showing the TDCJ intended to build air-conditioned barns for pigs meant for offender consumption.<sup>124</sup> Providing remedies that decrease the overall temperatures in the TDCJ housing facilities will not only correct a constitutional violation against offenders, but it will also assist in retaining correctional officer staff members.<sup>125</sup>

#### IV. OTHER SYSTEMS PROVIDE OR SUPPORT AIR CONDITIONING OR OTHER COOLING METHODS TO LOWER HOUSING AREA TEMPERATURES

Other prison administrative bodies take a more active approach to protecting incarcerated offenders from excessive heat. The Federal Bureau of Prisons mandates through its Facilities Operational Manual “target temperatures of 76 degrees during the summer and 68 degrees in winter.”<sup>126</sup> Out of the 122 prisons in the Federal Bureau of Prisons, only seven are currently without air conditioning.<sup>127</sup> One of the air-conditioned facilities includes Guantanamo Bay.<sup>128</sup>

Some states mandate temperature ranges for their prison housing areas. Arkansas has had air conditioning in its prisons since the 1970s and requires

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122. *Id.*

123. Alisa Roth, *Do Heat-Sensitive Inmates Have a Right to Air Conditioning?*, NPR (July 24, 2014, 1:33 PM), <https://www.npr.org/2014/07/24/334049647/do-heat-sensitive-inmates-have-a-right-to-air-conditioning> [https://perma.cc/LAT3-B5HV].

124. Allegra M. McLeod, *Beyond the Carceral State*, 95 TEX. L. REV. 651, 671 (2017) (reviewing MARIE GOTTSCHALK, *CAUGHT: THE PRISON STATE AND THE LOCKDOWN OF AMERICAN POLITICS* (2015)).

125. *See* Opinion, *Air Conditioning Would Help Prison Guards Too*, BEAUMONT ENTERPRISE (Aug. 18, 2018, 6:05 AM), <https://www.beaumontenterprise.com/opinions/editorials/article/Air-conditioning-would-help-prison-guards-too-13164802.php> [https://perma.cc/N9KM-6FJU] [hereinafter *Air Conditioning Would Help Prison Guards Too*] (emphasizing the effect lack of air-conditioning has on the staffing shortage in the TDCJ).

126. Matthew Clarke & Christopher Zoukis, *Litigation Heats Up Over Extreme Temperatures in Prisons, Jails*, PRISON LEGAL NEWS (June 29, 2018), <https://www.prisonlegalnews.org/news/2018/jun/29/litigation-heats-over-extreme-temperatures-prisons-jails/> [https://perma.cc/5TA8-9PRN].

127. *Id.*

128. Edwards & Medlock, *supra* note 8.

temperatures to be between 74 to 78 degrees.<sup>129</sup> Alaska’s Department of Corrections Policies and Procedures mandates temperatures in the facilities range from 65 degrees to 80 degrees Fahrenheit.<sup>130</sup> The Minimum Standards for Jails and Lockups in Virginia require all rooms of the facilities be at least 65 degrees Fahrenheit or higher, but if temperatures exceed 85 degrees Fahrenheit, “[a]ir conditioning or mechanical ventilation systems, such as electric fans, shall be provided . . . .”<sup>131</sup> Oklahoma and New Mexico corrections require offender housing areas to be kept “at temperatures appropriate to both summer and winter comfort zones.”<sup>132</sup> North Carolina state officials report approximately 63% of the prison beds in the state are air-conditioned.<sup>133</sup> Additionally, in light of the federal court order requiring Texas to provide cooler housing areas for heat-sensitive offenders, Kansas corrections officials plan to provide air-conditioning throughout the next prison to be built by the state.<sup>134</sup>

Although a substantial amount of prison facilities in the TDCJ do not have air conditioning or cooling mechanisms in offender housing areas,<sup>135</sup> Texas does not completely disregard the need to provide temperature regulations in all offender housing areas. Texas jails are required, by statute, to maintain temperatures between 65 and 85 degrees Fahrenheit.<sup>136</sup>

Many other states also have regulations in place similar to Texas that expressly provide appropriate temperatures in their jail systems. Illinois requires jails “[b]e heated and cooled according to the season . . . and to routinely provide temperatures within the normal comfort zone (67 degrees

129. UNIV. OF TEX. SCH. OF LAW, DEADLY HEAT IN TEXAS PRISONS 19 (2014), <https://law.utexas.edu/wp-content/uploads/sites/11/2015/05/2014-HRC-USA-DeadlyHeat-Report.pdf> [<https://perma.cc/K56V-P7QE>]; Mike Ward, *Guards to Join Convict Litigation Over Hot State Prisons*, STATESMAN (updated Sept. 27, 2018, 1:19 AM), <https://www.statesman.com/NEWS/20130829/Guards-to-join-convict-litigation-over-hot-state-prisons> [<https://perma.cc/7DB4-CC9C>].

130. ALASKA DEP’T OF CORR., POLICIES & PROCEDURES § 801.03(5)(C) (2012).

131. 6 VA. ADMIN. CODE § 15-40-1160(C) (2018).

132. UNIV. OF TEX. SCH. OF LAW, *supra* note 129, at 19–20 (citations omitted).

133. Ann McAdams, *Temperatures 90 Degrees Inside State Prison with no A/C*, WECT NEWS 6 (July 18, 2016, 5:35 PM), <http://www.wect.com/story/32470934/temperatures-90-degrees-inside-state-prison-with-no-ac/> [<https://perma.cc/UW69-JUB4>].

134. See John Hanna, *Kansas to Air-Condition Next Prison as Heat Becomes Concern*, SEATTLE TIMES (Aug. 12, 2017, 7:05 AM), <https://www.seattletimes.com/nation-world/kansas-to-air-condition-next-prison-as-heat-becomes-concern/> [<https://perma.cc/5GXU-NZN7>] (claiming air-conditioning will “lessen problems with inmates and to combat high employee turnover”).

135. See Blakinger & Banks, *supra* note 107 (discussing Texas has 29 facilities with air conditioning, while the remaining 75 facilities do not).

136. 37 TEX. ADMIN. CODE § 259.160 (2018) (Tex. Comm’n on Jail Standards, Temperature Control).

to 85 degrees Fahrenheit).<sup>137</sup> A North Carolina statute provides temperatures in jails not to be below 68 degrees when heating is necessary and not be above 85 degrees when cooling is necessary.<sup>138</sup> Tennessee requires jail temperatures to be maintained between 65 degrees and 80 degrees in areas where offenders conduct their daily activities or sleep.<sup>139</sup> The Ninth Circuit mandated pretrial detainees taking psychotropic medications to be housed in areas that have a temperature below 85 degrees after offenders filed a lawsuit in an Arizona district court against Sheriff Joe Arpaio.<sup>140</sup>

Furthermore, the U.S. Department of Justice filed an amicus brief supporting the offenders in *Ball v. LeBlanc*.<sup>141</sup> “The Justice Department’s amicus brief, along with the statement of interest it submitted at the trial level, signal its concern with high prison temperatures and its willingness to become involved in efforts to force correctional departments to provide adequate cooling.”<sup>142</sup> This is significant as the Department of Justice enforces the Civil Rights of Institutionalized Persons Act (CRIPA) and allows the Attorney General the ability to investigate potentially unconstitutional conditions in prisons.<sup>143</sup> Providing support for offenders

137. ILL. ADMIN. CODE 20, § 720.40(c) (2018).

138. 10A N.C. ADMIN. CODE 14J.1217(a) (2018).

139. TENN. CORR. INST., RULES OF THE TENNESSEE CORRECTIONS INSTITUTE CORRECTIONAL FACILITIES INSPECTION 1400-01-.04(2)(d) (2018).

140. *Graves v. Arpaio*, 623 F.3d 1043, 1050 (9th Cir. 2010). Sheriff Joe Arpaio gained notoriety by opening the Tent City Jail, an outdoor detention facility made solely of “Korean-War-era tents,” in Phoenix, Arizona in 1993. Scott Neuman, *Sheriff Joe Arpaio’s Infamous ‘Tent City Jail’ Closes*, NPR (Oct. 12, 2017, 6:31 AM), <https://www.npr.org/sections/thetwo-way/2017/10/12/557302259/sheriff-joe-arpaio-infamous-tent-city-jail-closes> [https://perma.cc/6V6C-QMEE]. Criticism of Tent City Jail stemmed from the conditions offenders faced while serving their sentences, especially during summer months. Neuman, *supra*. “From 2004 through November 2007, Sheriff Joe and his jails were targeted by 2,150 lawsuits, some of which alleged brutality against inmates . . .” Michelle Mark, *How Former Arizona Sheriff Joe Arpaio Became the Most Hated Lawman in America*, BUS. INSIDER (Jan. 10, 2018, 5:24 PM), <https://www.businessinsider.com/maricopa-county-sheriff-joe-arpaio-pardoned-by-trump-2017-8> [https://perma.cc/UL46-6KRR]. The Tent City Jail was officially shut down in 2017 by Paul Penzone after he defeated Joe Arpaio for Sheriff. Neuman, *supra*.

141. Brief for the United States as Amicus Curiae Supporting Plaintiffs-Appellees/Cross-Appellants, *Ball v. LeBlanc*, 792 F.3d 584 (5th Cir. 2015) (No. 14-30067), 2014 WL 10485241; *see Holt*, *supra* note 15, at 48 (“Amicus briefs supporting the [offenders] at the appellate state were filed by the US Department of Justice, AFSCME Local 3807 (Texas Correctional Employees), the Louisiana Advocacy Center and Disability Rights Texas, and Families of Deceased Texas Prisoners.”).

142. *Holt*, *supra* note 15, at 48.

143. 42 U.S.C. § 1997a (2018); *see* Brief for the United States, *supra* note 141, at 1 (stating the Attorney General may “investigate and seek equitable relief” in response to unconstitutional conditions in prisons).

by filing an amicus brief potentially shows the Department of Justice “has taken an interest in extreme heat conditions.”<sup>144</sup> Although demonstrating an interest in temperatures in offender housing does not necessarily correlate with future action, the possibility still stands that the Department of Justice may focus on addressing potential Eighth Amendment violations stemming from excessively high heat in offender housing areas.<sup>145</sup>

Considering some jurisdictions require jails and prisons to have minimum and maximum temperature ranges in offender housing areas, along with support from the Department of Justice, it is entirely possible “the evolving standards of decency that mark the progress of a maturing society” used to analyze the Eighth Amendment points to providing offenders with cooler environments in their housing areas.<sup>146</sup>

#### V. AIR CONDITIONING IS THE MOST EFFECTIVE REMEDY

An appropriate first step to expel the risks faced by offenders who are forced to live in housing with excessive heat is for the State of Texas to implement a statute setting a temperature range for prison housing similar to that already in effect for Texas jails.<sup>147</sup> The simplest way to alleviate excessive temperatures and cool offender housing areas is to install and run air conditioning systems.<sup>148</sup> Approximately 87% of homes in the United States have some type of air conditioning system, and its use is likely to increase.<sup>149</sup> Air conditioning would not only reduce the serious health risks created by excessive heat, but it would also completely eliminate such risks in offender housing areas.<sup>150</sup>

One challenge in providing air conditioning in offender housing areas in prisons is the PLRA’s narrowly drawn mandate of remedies that only go far

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144. Holt, *supra* note 15, at 54.

145. *Id.*

146. *See* Trop v. Dulles, 356 U.S. 86, 101 (1958) (recognizing the Eighth Amendment “draw[s] its meaning from the evolving standards of decency that mark the progress of a maturing society.”).

147. *See* 37 TEX. ADMIN. CODE § 259.160 (2018) (Tex. Comm’n on Jail Standards, Temperature Control) (requiring temperatures in Texas jails be maintained between 65 degrees and 85 degrees).

148. Cole v. Collier, No. 4:14-CV-1698, 2017 WL 3049540, at \*34 (S.D. Tex. July 19, 2017).

149. U.S. ENERGY INFO. ADMIN., WHAT’S NEW IN HOW WE USE ENERGY AT HOME: RESULTS FROM EIA’S 2015 RESIDENTIAL ENERGY CONSUMPTION SURVEY (RECS) 10 (2018), [https://www.eia.gov/consumption/residential/reports/2015/overview/pdf/whatsnew\\_home\\_energy\\_use.pdf](https://www.eia.gov/consumption/residential/reports/2015/overview/pdf/whatsnew_home_energy_use.pdf) [<https://perma.cc/W3MW-8KJA>]; *see also* Cole, 2017 WL 3049540, at \*34 (recognizing as of 1995 approximately 90% of homes in southern states had some form of air conditioning and that that number has likely increased).

150. Cole, 2017 WL 3049540, at \*34.

enough to correct the constitutional violation in the prison.<sup>151</sup> In *Ball v. LeBlanc*,<sup>152</sup> the court struck down the requirement that the prison unit provide air conditioning to offenders housed on death row based on the court's finding that air conditioning was unnecessary in correcting the Eighth Amendment violation created by excessive heat.<sup>153</sup> Adversely, the *Cole* court held the least restrictive means in protecting heat susceptible offenders was to mandate the TDCJ to lower temperatures in their housing areas.<sup>154</sup> While the *Cole* court stated requiring air conditioning for healthy offenders who could participate in a fully functional respite program, along with having other mitigating efforts applied in their housing areas, would fall outside the scope of the PLRA's narrowly drawn relief requirement, the court alluded that such mitigating factors still may not correct the constitutional violation created by excessive heat.<sup>155</sup>

An additional concern for prisons is the cost to retrofit and run air conditioning in offender housing areas.<sup>156</sup> The TDCJ is limited on the amount of spending it may direct to facility improvements, as it receives and is bound by a yearly budget that is approved by the Governor of Texas and the Texas Legislature.<sup>157</sup> Experts testified in *Cole* on behalf of the TDCJ that installing permanent air conditioning in the Wallace Pack Unit would cost more than \$20 million.<sup>158</sup>

151. See 18 U.S.C. § 3626(a)(1)(A) (2018) (requiring relief granted by courts “extends no further than necessary to correct the violation of the Federal right . . .”).

152. *Ball v. LeBlanc*, 792 F.3d 584 (5th Cir. 2015).

153. See *id.* at 599 (recognizing PLRA only allows offenders to receive minimal relief to alleviate injuries that violate the Eighth Amendment).

154. *Cole*, 2017 WL 3049540, at \*45.

155. See *id.* (“[G]iven the potential effectiveness of a respite program for young and healthy [offenders], the Court concludes that this, along with the other mitigation measures currently in place, may correct the harm . . .” (emphasis added)).

156. *Id.* at \*43; see Jolie McCullough, *Texas Spent \$7 Million to Fight Against A/C in a Prison. It May Only Cost \$4 Million to Install*, TEX. TRIB. (Aug. 29, 2018, 6:00 PM), <https://www.texastribune.org/2018/08/29/texas-prison-heat-air-conditioning-cost-drop/> [<https://perma.cc/JA2K-RX6L>] (“Texas Attorney General Ken Paxton said ‘taxpayers shouldn’t be on the hook for tens of millions of dollars to pay for expensive prison air conditioning systems.’”); but see *Air Conditioning Would Help Prison Guards Too*, *supra* note 125 (“Taxpayers must realize that the goal of prison is not just punishment but also correction. Virtually all inmates are paroled . . . . If they are treated like animals while in prison and thrown back into the neighborhoods they came from, they’ll likely . . . wind up back behind bars. That helps no one—and costs a lot.”).

157. See TEX. DEP’T OF CRIMINAL JUSTICE, AGENCY OPERATING BUDGET 2018 (2017) (noting both the Legislature and Governor take part in approving the TDCJ’s operating budget).

158. See *Cole*, 2017 WL 3049540, at \*36 (“[T]he Court notes that . . . it would cost over \$22 million to install permanent air conditioning at the Pack Unit.”); McCullough, *supra* note 156 (reporting an expert testified installation of air conditioning at the Pack Unit would cost over \$20 million).

Since the TDCJ settled the lawsuit, that estimated cost was reduced down to \$4 million for installing permanent air conditioning at the same unit.<sup>159</sup> Experts have also estimated that it would cost approximately \$2 million to furnish the Hodge Unit with air conditioning.<sup>160</sup> While these figures may appear high, the State of Texas spent over \$7 million fighting against providing offenders at the Pack Unit with air-conditioned housing areas.<sup>161</sup> “[T]he Texas Attorney General’s Office spent nearly \$2.7 million representing the prison system . . . . And the state agreed in the settlement to pay the [offenders’] attorneys another \$4.5 million.”<sup>162</sup> While funding for installing air conditioning in offender housing may be an initial hurdle, rarely will the argument that costs associated with correcting constitutional violations in the prison system be an adequate defense when offenders are denied their constitutional rights.<sup>163</sup>

Additionally, there are ways to mitigate the costs of energy if offender housing areas are retrofitted with air conditioning.<sup>164</sup> The TDCJ could implement passive cooling techniques, such as cool roofs or green roofs, to help “reduce the need for air conditioning.”<sup>165</sup> Roof surfaces have an effect on the internal temperature and energy demands of buildings.<sup>166</sup> Cool roofs have “[r]eflective roof membranes . . . [that] have the potential for decreasing cooling energy consumption by lowering roof temperatures.”<sup>167</sup>

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159. McCullough, *supra* note 156.

160. Blakinger & Banks, *supra* note 107.

161. McCullough, *supra* note 156.

162. Jolie McCullough, *After \$7 Million Legal Fight Over Air Conditioning, Texas Prison System Touts New Safety Policies*, TEX. TRIB. (July 26, 2018, 12:00 AM), <https://www.texastribune.org/2018/07/26/texas-prison-heat-air-conditioning-costs/> [<https://perma.cc/Y23C-M3QN>].

163. See *Wilson v. Seiter*, 501 U.S. 294, 311 n.2 (1991) (“Among the lower courts, ‘[i]t is well established that inadequate funding will not excuse the perpetuation of unconstitutional conditions of confinement.’” (White, J., concurring) (citations omitted)); *Gates v. Collier*, 501 F.2d 1291, 1320 (5th Cir. 1974) (“Shortage of funds is not a justification for continuing to deny citizens their constitutional rights.”); *Jackson v. Bishop*, 404 F.2d 571, 580 (8th Cir. 1968) (“Humane considerations and constitutional requirements are not, in this day, to be measured or limited by dollar considerations . . .”).

164. See Holt, *supra* note 15, at 79 (“Many cost-effective options exist for modifying existing buildings to make them better suited for hot weather.”).

165. *Id.*

166. See Antonio Gagliano et al., *A Multi-Criteria Methodology for Comparing the Energy and Environmental Behavior of Cool, Green and Traditional Roofs*, 90 BUILDING & ENV’T 71, 71 (2015) (“[T]he behavior of the roof surface highly affects the peak load and the energy cooling demand in conditioned buildings, as well as the indoor thermal comfort in non-conditioned buildings.”).

167. Thomas J. Taylor, *Cool Roof Use in Commercial Buildings in the United States: An Energy Cost Analysis*, 124 ASHRAE TRANSACTIONS 88, 88 (2018); see *Using Green Roofs to Reduce Heat Islands*, EPA,



Since the reflective membrane reduces the amount of heat absorbed by the roof, “higher reflectance roof coverings [were] found to lower cooling costs.”<sup>168</sup> “In buildings with air conditioning (AC), cool roofs can save money on energy bills, lower peak energy demands, and reduce air pollution and greenhouse gas emissions. In buildings without AC, cool roofs can increase indoor occupant comfort by lowering top-floor temperatures.”<sup>169</sup>

Other types of roofs, such as green roofs, also provide roofing alternatives that help keep buildings cooler.<sup>170</sup> Green roofs have soil and a vegetative cover on the surface of the roof.<sup>171</sup> “Green roofs provide shade, remove heat from the air, and reduce temperatures of the roof surface and surrounding air.”<sup>172</sup> This would reduce the amount of energy needed to cool the buildings internally and improve indoor comfort.<sup>173</sup> Green roofs can either be extensive or intensive, “depending on the amount of soil and plant cover.”<sup>174</sup> Extensive green roofs have smaller vegetation and generally only require about 5 inches of soil, while intensive green roofs can support trees and shrubs, requiring at least one foot of soil.<sup>175</sup> Also, green roofs tend to have a longer lifespan than traditional roofs.<sup>176</sup> Installing either cool roofs or green roofs would not require displacing offenders while they are installed, as both options only require retrofitting the already existing building.<sup>177</sup>

Implementing methods to reduce prison populations would also assist in downsizing the number of prisons that likely require air conditioning.<sup>178</sup>

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<https://www.epa.gov/heat-islands/using-green-roofs-reduce-heat-islands#5> [<https://perma.cc/R7CR-N3H6>] (Cool roofs are made of highly reflective and emissive materials that remain cooler than traditional materials during peak temperatures.”).

168. Taylor, *supra* note 167, at 89.

169. *Cooling Summertime Temperatures: Strategies to Reduce Urban Heat Islands*, EPA (Sept. 2003), <https://www.epa.gov/sites/production/files/2014-06/documents/hiribrochure.pdf> [<https://perma.cc/8HUT-HLBW>] [hereinafter *Cooling Summertime Temperatures*].

170. *See id.* (“[G]reen roofs reduce summertime air conditioning demand by lowering heat gain to the building.”).

171. Gagliano et al., *supra* note 166, at 72.

172. *Using Green Roofs to Reduce Heat Islands*, *supra* note 167.

173. *Id.*

174. *Cooling Summertime Temperatures*, *supra* note 169.

175. *Id.*; *see* Gagliano et al., *supra* note 166, at 72 (stating extensive green roofs have a soil thickness of below 15 centimeters while intensive green roofs have over 20 centimeters of soil thickness).

176. *Using Green Roofs to Reduce Heat Islands*, *supra* note 167.

177. Holt, *supra* note 15, at 80.

178. *See id.* at 73–74 (recognizing a decreased prison population makes adaption strategies more manageable).

Reducing the number of offenders managed by the TDCJ would allow more vulnerable facilities to be phased out and allow newer, better-adapted facilities to be retrofitted for air conditioning units.<sup>179</sup> While decreasing the number of offenders in the TDCJ will alleviate some issues with funding, “reducing the incarcerated population cannot come at the expense of increasing crime or otherwise compromising public safety.”<sup>180</sup> Reducing the number of offenders is not a novel idea for the Texas legislature, as methods to decrease the prison population have been implemented in recent years.<sup>181</sup> Methods used to decrease the offender population include “programs to divert offenders from prison, increasing the use of parole, and expanding substance abuse, mental health, and intermediate sanction programs and facilities.”<sup>182</sup> Since Texas started moving towards reducing its offender population through these programs, the state has closed eight prison facilities since 2012.<sup>183</sup> Even with the progress made in recent years to reduce incarceration numbers, Texas still has the highest incarceration rate in the country.<sup>184</sup> Texas could continue to reduce prison populations without affecting crime rates by reducing sentences and time served, not incarcerating individuals for technical parole or probation violations, and decriminalizing some offenses that are considered “victimless crimes,” such

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179. *See id.* at 79 (“In the process of assessing their vulnerabilities . . . correctional departments will find that some facilities are already well-adapted, others can be retrofitted at reasonable cost, and still others would be too difficult or costly to cool . . .”).

180. *Id.* at 74.

181. Erin A. Orrick & Lynne M. Vieraitis, *The Cost of Incarceration in Texas: Estimating the Benefits of Reducing the Prison Population*, 40 AM. J. CRIM. JUST. 399, 400 (2014) (“In 2005, when faced with the possibility of spending approximately a half billion dollars to build and operate new prisons to accommodate the projected increase in the prison population, the Texas legislature began examining alternatives to incarceration.”).

182. *Id.* Moving towards more rehabilitative models such as drug and mental health treatment also comports with the statutory mission of the TDCJ, which is “to provide public safety, promote positive change in offender behavior, reintegrate offenders into society, and assist victims of crime.” TEX. GOV. CODE § 493.001 (2018). Additionally, programs implemented by Texas are now being used to assist in federal prison reform through the First Step Act, which “offers incentives for [offenders] to participate in ‘life-changing’ classes and programming that would better prepare them for life after release, an initiative Texas started over a decade ago.” Hannah Wiley, *Trump Administration Looks to Texas as it Pushes a Criminal Justice Reform Bill*, TEX. TRIB. (Dec. 3, 2018, 12:00 AM), <https://www.texastribune.org/2018/12/03/first-step-act-prison-reform-texas-criminal-justice/> [https://perma.cc/W9FS-JCVG].

183. Alexandra Hart, *Texas Lawmakers Are Rethinking Criminal Justice in Light of Swollen Prison Population*, KUT 90.5 (Sept. 28, 2018), <https://www.kut.org/post/texas-lawmakers-are-rethinking-criminal-justice-light-swollen-prison-population> [https://perma.cc/77AM-MVUK].

184. *Id.*

as some drug charges.<sup>185</sup> While funds that were saved by reducing the prison population were reinvested into programs that help reduce and prevent recidivism,<sup>186</sup> some of those funds could be redirected towards the costs associated with installing and running air conditioning units in offender housing areas.

## VI. CONCLUSION

With a rise in temperatures and the increasing prominence of heat waves in Texas,<sup>187</sup> the need to provide adequate protection against excessive heat to those who do not have the liberty to protect themselves has also increased.<sup>188</sup> Courts have recognized that the Eighth Amendment “draw[s] its meaning from the evolving standards of decency that mark the progress of a maturing society,”<sup>189</sup> and therefore extends protection to the living conditions of confinement for offenders.<sup>190</sup> In order for offenders to successfully show unconstitutional conditions of confinement, they must satisfy a two-prong test.<sup>191</sup> The first prong is an objective standard showing there is a serious risk to health or safety, while the second, subjective prong requires showing prison officials showed deliberate indifference to that risk.<sup>192</sup> Furthermore, offenders do not need to show they have already been harmed in order to succeed in a claim of inhumane conditions of confinement.<sup>193</sup>

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185. Orrick & Vicraitis, *supra* note 181, at 402–03.

186. *Id.* at 403.

187. *See* Stevens, *supra* note 1 (recognizing “extreme heat waves have become more frequent in recent decades” in Texas).

188. *See* Helppie-Schmieder, *supra* note 14, at 661 (calling offenders “uniquely vulnerable” in the fact that they cannot control or alter the environment they are placed in).

189. *Trop v. Dulles*, 356 U.S. 86, 101 (1958).

190. *See* *Helling v. McKinney*, 509 U.S. 25, 30–31 (1993) (“[T]he Eighth Amendment applies to conditions of confinement that are not formally imposed as a sentence for a crime[.]”).

191. *See* *Farmer v. Brennan*, 511 U.S. 825, 834 (1994) (“Our cases have held that a prison official violates the Eighth Amendment only when two requirements are met.”).

192. *Id.*; *see* Helppie-Schmieder, *supra* note 14, at 653 (“A successful prison conditions claim requires proving that: (1) the plaintiff faced substantial risk of serious harm, and (2) the defendant was ‘deliberately indifferent’ to that risk.” (citation omitted)).

193. *See* *Helling*, 509 U.S. at 33 (acknowledging courts have recognized offenders “need not await a tragic event” to file a claim against unsafe prison conditions).

The courts have recognized extreme temperatures in prison housing areas as an unconstitutional condition of confinement.<sup>194</sup> The TDCJ started implementing mitigating relief measures against excessive heat after lawsuits were filed, such as providing offenders access to ice water, cool-down showers, fans, and respite areas.<sup>195</sup> One lawsuit assessed the effectiveness of these mitigating measures as they were applied to offenders who were heat susceptible.<sup>196</sup> This lawsuit ultimately ended in a settlement between the TDCJ and offenders, stating air conditioning would be retrofitted at the Wallace Pack Unit, pending legislative approval.<sup>197</sup>

Other than satisfying the two-prong test to demonstrate unconstitutional prison conditions, offenders are also limited by the type of relief they may receive by the PLRA.<sup>198</sup> While some courts have held air conditioning does not satisfy the standards of relief laid out by the PLRA,<sup>199</sup> others have held, where other mitigating factors do not reduce the risk of harm, air conditioning may be an appropriate form of relief.<sup>200</sup> Even though the TDCJ has implemented mitigating measures to battle excessive heat in offender housing areas,<sup>201</sup> the extreme heat still has a serious effect on healthy and heat-sensitive offenders and correctional officers. Although the TDCJ plans to furnish two additional units with air conditioning,<sup>202</sup> it is unlikely the TDCJ will be able to provide adequate housing for all offenders who are deemed heat-sensitive individuals if no other units receive air conditioning.

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194. See *Wilson v. Seiter*, 501 U.S. 294, 304 (1991) (recognizing temperatures in offenders' cells without adequate remedies may violate the Eighth Amendment); *Ball v. LeBlanc*, 792 F.3d 584, 596 (5th Cir. 2015) (“[W]e affirm the district court’s conclusion that housing these [offenders] in very hot cells without sufficient access to heat-relief measures, while knowing that each suffers from conditions that render him extremely vulnerable to serious heat-related injury, violates the Eighth Amendment.”).

195. *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*21–24 (S.D. Tex. July 19, 2017).

196. See *id.* at \*39 (finding even with mitigating measures in effect, the “risk is especially heightened” for those who were more prone to heat-related illnesses).

197. McCullough, *supra* note 12.

198. See 18 U.S.C. § 3626(a)(1)(A) (2018) (mandating courts provide relief that is “narrowly drawn” to correct unconstitutional conditions of confinement).

199. See *Ball*, 792 F.3d at 599 (finding air conditioning as unnecessary in correcting an Eighth Amendment violation of excessive heat for inmates housed on death row).

200. See *Cole*, 2017 WL 3049540, at \*46 (mandating the TDCJ “lower temperatures in the housing areas of heat-sensitive inmates” even though mitigating measures were in effect).

201. Tex. Dep’t of Criminal Justice, *supra* note 37 (outlining mitigating measures added to the TDCJ policies and procedures).

202. See McCullough, *supra* note 12 (showing the TDCJ plans on providing the Wallace Pack Unit with air conditioning after a settlement was reached between the TDCJ and offenders); Blakinger & Banks, *supra* note 107 (announcing the TDCJ’s plan to install air conditioning at the Hodge Unit).

The TDCJ should follow the examples set by other jurisdictions, including jail facilities in Texas, and create a minimum and maximum temperature for offender housing areas.<sup>203</sup> Providing such relief will benefit not only offenders but also correctional officers who work in the heat<sup>204</sup> and support litigation fighting for air conditioning in the prisons.<sup>205</sup> The most efficient way to lower extremely high temperatures in offender housing areas is to provide air conditioning.<sup>206</sup>

While the costs of providing such relief are of concern,<sup>207</sup> there are a number of ways such costs could be mitigated once air conditioning is installed.<sup>208</sup> Applying passive cooling techniques, such as cool roofs and green roofs, could reduce energy costs associated with running air conditioning.<sup>209</sup> Additionally, reducing the offender population would assist the TDCJ in paying for the costs associated with lowering indoor temperatures.<sup>210</sup> The TDCJ could continue reducing its incarcerated population and shutting down prisons that are not appropriate for the retrofitting of air conditioning.<sup>211</sup> While it is promising that the TDCJ plans

203. See 37 TEX. ADMIN. CODE § 259.160 (2018) (mandating temperatures in jail housing areas be between 65 degrees and 85 degrees); 20 ILL. ADMIN. CODE § 720.40 (2018) (providing housing areas be kept in “the normal comfort zone”); ALASKA DEP’T OF CORR., POLICIES & PROCEDURES § 801.03(5)(C) (2012) (requiring facilities be “between 65 and 80 degrees Fahrenheit.”); see also Clarke & Zoukis, *supra* note 126 (reporting federal prisons also have temperature range mandates).

204. *Air Conditioning Would Help Prison Guards Too*, *supra* note 125 (“[Air conditioning] would make prisons more bearable for guards[,] and head off the growing number of lawsuits by prisoners who say the heat is a form of cruel and unusual punishment.”).

205. See McLeod, *supra* note 124 (“[T]he prison guards’ union joined in support of a prisoners’ lawsuit challenging the excessive heat in Texas prisons—after learning the state planned to construct climate-controlled barns to raise pigs for prisoners’ consumption . . .”).

206. *Cole v. Collier*, No. 4:14-CV-1698, 2017 WL 3049540, at \*34 (S.D. Tex. July 19, 2017).

207. See *id.* at \*36 (showing the range of estimated costs it would take to air condition the Wallace Pack Unit); McCullough, *supra* note 156 (reporting the TDCJ fought a legal battle against installing air conditioning in the Pack Unit because the cost “was too burdensome”).

208. Holt, *supra* note 15, at 79 (“Many cost-effective options exist for modifying existing buildings to make them better suited for hot weather.”).

209. See Taylor, *supra* note 167, at 89 (showing cool roofs are capable of reducing energy costs); *Using Green Roofs to Reduce Heat Islands*, *supra* note 167 (identifying green roofs as a way to reduce the amount of energy needed to cool indoor areas).

210. See Holt, *supra* note 15, at 74 (“[B]ringing down the number of inmates without triggering an increase in crime adds to the credibility and perceived effectiveness of the criminal justice system, thereby strengthening its hand in competition for scarce adaption funds.”).

211. See *id.* at 79 (“Ultimately, facilities that cannot reasonably be made suitable for future climate conditions will have to be phased out. If [offender] populations fall significantly, correctional departments may find it unnecessary to replace phased-out vulnerable facilities.”); Hart, *supra* note 183 (recognizing eight prison facilities have been closed as different programs with the aim to reduce incarceration numbers have been implemented in Texas).

to increase the number of air-conditioned beds in its facilities,<sup>212</sup> there are still opportunities for the agency to grow and continue to set a positive example for how offenders should be humanely treated with dignity and respect in today's decent, progressive, and modern society.

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212. McCullough, *supra* note 12; Blakinger & Banks, *supra* note 107.