

MAYBE IT'S TIME TO LET THE OLD WAYS DIE: NEW  
DATA ON CONSUMER PREFERENCES IN DEATH  
CARE

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INTRODUCTION

For nearly 2,000 years, Western death care practices were essentially limited to a single method of disposition—burial.<sup>1</sup> In the United States, burial was the sole legal method of disposition until the late 1800s and early 1900s, when laws were changed to permit

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1. See Joseph W. Dauben, *History and Background: How Our American Burial Traditions Emerged*, in *THE FUTURE OF THE CORPSE: CHANGING ECOLOGIES OF DEATH AND DISPOSITION* 1, 1–3 (Karla Rothstein & Christina Staudt eds., 2021).

disposition by cremation.<sup>2</sup> A century had to pass, after cremation was first legalized in the United States, for the cremation rate to hit double digits.<sup>3</sup> Embalming began to be popularized after the Civil War, but did not become a normal part of American death care practices until the mid-1900s.<sup>4</sup> For many decades thereafter, conventional wisdom accepted that embalming was a near universal practice in the United States.<sup>5</sup> The modern American funeral industry is essentially defined by, and constrained by, the occupational licensing system that was created to govern it.<sup>6</sup> That

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2. Although laws did not exist which expressly permitted burial or expressly forbade cremation, it was a common law crime, and later a statutory crime, to treat human remains with disrespect. The formulation by the Supreme Judicial Court of Maine in 1821 is typical:

From our childhood we all have been accustomed to pay a reverential respect to the sepulchres of our fathers, and to attach a character of sacredness to the grounds dedicated and inclosed as the cemeteries of the dead . . . . It is an outrage upon the public feelings, and torturing to the afflicted relatives of the deceased. If it be a crime thus to disturb the ashes of the dead, it must also be a crime to deprive them of a decent burial, by a disgraceful exposure, or disposal of the body contrary to usages so long sanctioned, and which are so grateful to the wounded hearts of friends and mourners. If a dead body may be thrown into a river, it may be cast into a street:—if the body of a child—so, the body of an adult, male or female. Good morals—decency—our best feelings—the law of the land—all forbid such proceedings. It is imprudent to weaken the influence of that sentiment which gives solemnity and interest to every thing connected with the tomb.

Kanavan's Case, 1 Me. 226, 227 (1821); *see also* STEPHEN PROTHERO, PURIFIED BY FIRE: A HISTORY OF CREMATION IN AMERICA 2 (2001) ("What Americans usually do is bury.").

3. The first crematory opened in the United States in 1876. One hundred years later, the cremation rate was 7.33%. CREMATION ASS'N OF N. AM., CANA ANNUAL STATISTICS REPORT 14 (2022) [hereinafter 2022 CANA REPORT]. In 2016, the cremation rate finally hit 50%. By 2023, 60.6% of those who died in the United States were cremated. CREMATION ASS'N OF N. AM., CANA ANNUAL STATISTICS REPORT 21 (2024) [hereinafter 2024 CANA REPORT].

4. *See* GARY LADERMAN, REST IN PEACE: A CULTURAL HISTORY OF DEATH AND THE FUNERAL HOME IN TWENTIETH-CENTURY AMERICA 6–8 (2005) (discussing the popularization of embalming after the Civil War).

5. *See* FED. TRADE COMM'N, FUNERAL INDUSTRY PRACTICES: FINAL STAFF REPORT TO THE FEDERAL TRADE COMMISSION AND PROPOSED TRADE REGULATION RULE (16 CFR PART 453) 145 (1978) ("[T]he mortuary staff will typically cleanse the body and often begin the process of embalming unless there are explicit instructions to the contrary.").

6. *See* Tanya D. Marsh, *Regulated to Death: Occupational Licensing and the Demise of the U.S. Funeral Services Industry*, 8 WAKE FOREST J.L. & POL'Y 5, 6–8 (2018) (describing the rise of occupational licensing regime for funeral industry).

system is based on an assumption that the deceased will be embalmed after death and then buried.<sup>7</sup>

Change comes slowly to American death care practices. At least, it *did* come slowly. Today we are experiencing unprecedented rapid and fundamental cultural shifts. Some of those shifts are well-documented, such as the shift from burial to cremation.<sup>8</sup> Other shifts are discussed in anecdotal terms, but not well-documented. Chief among those shifts is a growing interest in environmentally friendly methods of disposition<sup>9</sup> and the idea that baby boomers are leading a revolution to personalize death care.<sup>10</sup>

In order to better understand the changing American attitudes towards death care, and interest in emerging methods of disposition, we conducted the first academic survey of a representative sample of the U.S. adult population designed to assess their openness to and preferences for six methods of disposition: casket burial, cremation, green burial, water cremation (aka alkaline hydrolysis), natural

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7. Tanya D. Marsh, *A New Lease on Death*, 49 REAL PROP., TR. & EST. L.J. 421, 430 (2015) (“The prevailing social norm in the United States is the ‘traditional’ American funeral, in which the corpse is dispatched soon after death to the funeral home. There the corpse is embalmed, placed in a metal or wood casket, and often publicly displayed at the funeral home. Afterwards, the corpse is transported to the cemetery where a graveside service is conducted by a funeral director or a religious leader. One industry analysis concluded that an estimated 61% of all funeral services performed in 2011 were related to the ‘traditional’ American funeral, a significant decrease from 68% in 2006.”).

8. See PROTHERO, *supra* note 2, at 213–17 (providing a timeline on American cremation from 1874 to 1999).

9. For example, an industry publication recently reported on a new line of “environmentally friendly caskets” from industry leader Batesville Casket and cited “a recent survey published by Roundup.org” which stated that “78% of consumers agreed that environmental sustainability is important.” *Batesville Unveils Sustainable Casket Line*, 14 MEM’L BUS. J. 44, 6 (Nov. 2, 2023).

10. See, e.g., Thomas Lynch, *Funerals-R-Us: From Funeral Home to Mega Industry*, 28 GENERATIONS 11, 12–13 (2004) (“In the last third of the last century of this millennium—say between the killings of the Kennedy brothers and the Princess of Wales—something essential has changed in the conversation about death and grief and funerals . . . . Increased mobility, changes in family life and family structure, gender wars, religious indifference, global warming and cable TV. There are seventy-five million baby boomers—in their 30s and 40s and early 50s now. The ways we live and love and die and memorialize have changed. We divorce and abort more, cremate and Kevork more. We roll our own orthodoxies, do our spiritualities buffet-style and, in the way we thought we reinvented sex in the sixties, there is the sense that we are reinventing death at century’s end. We’re into choices and changes and traveling light.”).

organic reduction, and donation to science.<sup>11</sup> We also asked respondents about their willingness to consider embalming.<sup>12</sup>

Respondents were presented with the definition of each method of disposition in a randomized order: cremation, casket burial, green burial, water cremation, natural organic reduction, and donation to science. The definitions were designed to be accessible to survey participants without specialized knowledge about death care.

TABLE 1. DEFINITIONS OF EACH METHOD OF DISPOSITION

<b>Term</b>	<b>Definition</b>
Cremation	“Cremation” is the process in which a dead human body is placed inside a chamber that is heated to a very high temperature until the body is reduced to a powder known as “ashes”.
Casket Burial	“Casket burial” is the placement of a dead human body in a specially designed box called a casket, which is then buried in the ground or kept above ground in a building called a mausoleum.
Donation to Science	“Donation to science” means that a dead human body is given to a medical school or other organization that uses the body, in whole or in part, for medical research and/or education. Following that use, the body is typically cremated and “ashes” are returned to the family.
Green Burial	“Green burial” is the burial of a dead human body which has not been treated with chemicals either directly in the ground or in a biodegradable container which is then buried in the ground.

11. The survey was conducted from March 12 through March 18, 2024, through the Prolific platform. Respondents were required to be residents of the United States and at least 18 years of age. The 430 participants reflected a representative sample of the U.S. population in terms of age, gender identity, and racial or ethnic identity. Demographic information was collected for each respondent, including age, gender identity, racial or ethnic identity, religious affiliation, political identity, and state of residence. This study was approved by the Wake Forest University Institutional Review Board on March 8, 2024, as #IRB00025449. This survey was partially funded with a grant from The Order of the Good Death. Many thanks for their support.

12. *Id.*

<b>Term</b>	<b>Definition</b>
Natural Organic Reduction	“Human composting” (aka natural organic reduction) is a process in which a dead human body is placed in a container filled with natural materials and microorganisms that break down the body into soil.
Water Cremation	“Water cremation” (aka alkaline hydrolysis or aquamation) is a process in which a dead human body is placed in a chamber that is filled with a mixture of water and chemicals, which is then heated and pressurized until the body is reduced to liquid and a powder known as “ashes”.

Respondents were then asked a series of identical questions for each method of disposition. The methods of disposition were presented in a random order to avoid order effects on the participant’s answers. First, “have you heard” of the method of disposition. Second, “do you know anyone” who was disposed of with that method. Third, “would you consider” that method of disposition “for yourself.” At the end of the survey, respondents were asked to rank their preference for each of the six methods of disposition.

## I. KEY FINDINGS

The results of this survey revealed three key findings. First, there is substantial interest in emerging methods of disposition, particularly natural organic reduction. Second, interest in casket burial and embalming, the practices around which the current regulatory system is structured, is plummeting. Third, there is strong interest in green burial.

### A. *Support for Emerging Methods of Disposition*

Respondents showed universal or nearly universal recognition of the three methods of disposition that are legal in every state: cremation (the most popular method of disposition in the United States<sup>13</sup>), casket burial, and donation to science. Three newly emerging methods of disposition—green burial, natural organic

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13. *History of Cremation*, CREMATION ASS’N N. AM. (2024), <https://perma.cc/Y9PP-9FKE>.

reduction,<sup>14</sup> and water cremation<sup>15</sup>—were less well-known by respondents.

TABLE 2. HAVE YOU HEARD OF [THE METHOD OF DISPOSITION]?

<b>Method</b>	<b>Percentage</b>
Cremation	100%
Casket Burial	99.3%
Donation to Science	96.7%
Green Burial	40.0%
Natural Organic Reduction	38.6%
Water Cremation	13.5%

Despite their lack of familiarity with the three emerging methods of disposition, respondents demonstrated an incredible openness to them. Nearly half of our participants were willing to consider water cremation or natural organic reduction (42.3% and 48.8%, respectively).

TABLE 3. WOULD YOU CONSIDER [THE METHOD OF DISPOSITION] FOR YOURSELF?

<b>Method</b>	<b>Percentage</b>
Cremation	80.5%
Green Burial	57.7%
Donation to Science	52.1%
Casket Burial	51.6%
Natural Organic Reduction	48.8%
Water Cremation	42.3%

That enthusiasm for natural organic reduction and water cremation continued when respondents were asked to rank the methods of disposition in their order of preference. One in 4 respondents ranked natural organic reduction as either their first or second choice, and 1 in 8 ranked water cremation as either their first or second choice.

14. See Emily Stiles, *Natural Organic Reduction: Environmentally Friendly Death Dispositions for a Greener Tomorrow*, 59 WAKE FOREST L. REV. 1019, 1019 (2024).

15. Connor D. Reid & Barbara Kemmis, *Killing the Funeral Industry: The Problem with States' Piecemeal Approach to Legalizing Alternative Methods of Disposition*, 59 WAKE FOREST L. REV. 997, 1001 (2024).

TABLE 4. PERCENTAGE OF RESPONDENTS WHO RANKED EACH METHOD OF DISPOSITION AS THEIR FIRST OR SECOND CHOICE

Method	Percentage
Cremation	62.7%
Green Burial	37.8%
Casket Burial	35.4%
Donation to Science	26.3%
Natural Organic Reduction	24.5%
Water Cremation	13.3%

Neither of these methods of disposition is universally permitted by law.<sup>16</sup> Today, water cremation is legal in 27 states<sup>17</sup> and natural organic reduction, which was first proposed for humans by Katrina Spade only a decade ago,<sup>18</sup> is legal in 12 states.<sup>19</sup> The deep consumer interest in these methods of disposition should be useful information for state legislatures that are considering proposals to legalize and regulate these methods of disposition.

16. Allie Yang, *Rest in . . . Compost? These 'Green Funerals' Offer an Eco-Friendly Afterlife*, NAT'L GEOGRAPHIC (Feb. 24, 2023), <https://perma.cc/3XCA-L822>.

17. See ALA. CODE § 34-13-1(a)(3) (2023); ARIZ. REV. STAT. ANN. § 32-1341 (2024); CAL. HEALTH & SAFETY CODE § 7010.1 (2024); COLO. REV. STAT. § 12-135-103(4) (2023) (not restricting “cremation” to processes involving heat); CONN. GEN. STAT. § 20-207(3) (2023); FLA. STAT. § 497.005(22) (2023) (not restricting “cremation” to processes involving heat); GA. CODE ANN. § 43-18-1(5) (2024); HAW. REV. STAT. § 531B-2 (2023); IDAHO ADMIN. CODE r. 24.08.01.452 (2024); 410 ILL. COMP. STAT. 18/5 (2024); KAN. STAT. ANN. § 65-1760 (2023) (not restricting “cremation” to processes involving heat); 10-144-227 ME. CODE R. § 1 (2024); MD. CODE ANN., BUS. REG. § 5-101(e) (2023) (not restricting “cremation” to processes involving heat); MINN. STAT. § 149A.941 (2023); MO. CODE REGS. ANN. tit. 20, § 2120-2.070 (2024); NEV. STAT. § 451.607 (2023); N.C. GEN. STAT. § 90-210.136 (2023); OKLA. STAT. tit. 59, § 396.2 (2024); OR. REV. STAT. § 97.010 (2023); S.C. CODE ANN. §§ 32-8-305(9), 40-19-20(6) (2024); TENN. CODE ANN. § 62-5-803 (2023); 25 TEX. ADMIN. CODE § 479.4 (2024); UTAH CODE ANN. § 58-9-613 (2023); VT. STAT. ANN. tit. 26, § 1211 (2023); WASH. REV. CODE § 68.50.110 (2024); W. VA. CODE § 30-6-22b (2024); 35-0001 WYO. CODE R. § 6 (2024).

18. Lisa Wells, *To Be a Field of Poppies*, HARPER'S MAG. (Oct. 2021), <https://perma.cc/46QR-J69E>.

19. See ARIZ. REV. STAT. ANN. § 32-1301 (2024); CAL. HEALTH & SAFETY CODE § 7002.7 (2024); COLO. REV. STAT. § 15-19-110 (2024); DEL. CODE ANN. tit. 16, § 3101(8) (2024); 2024 Me. Laws 676; H.B. 1168, 446th Gen. Assemb., 2024 Reg. Sess. (Md. 2024) (effective Oct. 1, 2024); H.B. 5247, 93rd Leg., 4th Engrossment (Minn. 2024) (effective July 1, 2025); NEV. REV. STAT. § 451.623 (2023); N.Y. NOT-FOR-PROFIT CORP. LAW § 1502 (2024); OR. REV. STAT. § 692.010 (2023); VT. STAT. ANN. tit. 18, § 5201 (2023); WASH. REV. CODE § 68.04.310 (2024).

*B. Diminishing Interest in Casket Burial and Cremation*

While respondents embraced new methods of disposition, they largely rejected casket burial and embalming. For the past 50 years, the cremation rate has been rising steadily in the United States. The Cremation Association of North America estimates that the cremation rate in the United States will reach 71.9% by 2033.<sup>20</sup>

TABLE 5. PERCENTAGE OF DEATHS RESULTING IN CREMATION IN THE UNITED STATES

Year	Percentage <sup>21</sup>
1975	6.6%
1985	13.9%
1995	21.1%
2005	32.1%
2015	48.4%
2023	60.6%

The rising cremation rate, and the corresponding drop in the burial rate is a well-known phenomenon that the funeral industry and the cemetery industry have been struggling with for decades.<sup>22</sup> It has been suspected that the decline in casket burial would correlate with a decline in the embalming rate, but there are no publicly available statistics on the embalming rate.<sup>23</sup> Our survey revealed that only 37.2% of respondents were even willing to *consider* embalming. Only 21.4% of respondents chose casket burial as their first choice method of disposition and only half (51.6%) were willing to consider it as a method of disposition.

These findings should prompt a serious re-examination of the occupational licensing regime that governs and defines the American funeral industry. That occupational licensing regime is, simply put, organized around the assumption that the dominant method of disposition is embalming followed by casket burial. In most states, in order to legally practice funeral service, an individual must have formal education in embalming and restorative arts, pass a national

20. 2024 CANA REPORT, *supra* note 3, at 14.

21. CREMATION ASS'N OF N. AM., CANA ANNUAL STATISTIC REPORT 10 (2021) (giving U.S. cremation rates for the years 1975 and 1985); 2024 CANA REPORT, *supra* note 3, at 14–15 (giving U.S. cremation rates for the years 1995, 2005, 2015, and 2023).

22. *See* Marsh, *supra* note 6, at 21–24.

23. *See, e.g.*, Oliver Whang, *The Fading Art of Preserving the Dead*, N.Y. TIMES (June 20, 2023), <https://www.nytimes.com/2022/11/01/science/embalming-funerals-death.html> (discussing the decline of embalming without citing any specific statistics or data).



exam on that subject, and serve an apprenticeship that requires embalming a minimum number of remains.<sup>24</sup> Generally, an individual may not practice funeral service in a building other than a licensed funeral home.<sup>25</sup> In most states, in order to be a licensed funeral home, a building must have an embalming room.<sup>26</sup> The significant expense involved in satisfying the educational and infrastructure requirements that are built into the licensure system is justified by the assumption that most remains will be embalmed.<sup>27</sup> Those expenses are passed along to consumers in the form of higher prices for funeral goods and services.<sup>28</sup> If the central organizing assumption of the occupational licensing regime—the predominance of embalming and casket burial—is no longer true, then the regime should be reformed. Most significantly, states should adopt two-track licensing regimes that allow funeral directors to become licensed without first becoming embalmers.

### C. *Strong Interest in Green Burial*

Rising interest in green funeral goods and services has been noted for a number of years.<sup>29</sup> Green burial is fascinating because although it is popularly described as a new method of disposition, it is actually one of the oldest methods because it is simply burial without the modern additions of embalming, a hardwood or metal casket, and a vault.<sup>30</sup> Green burial is legal in every state, but recent attempts to establish green burial grounds have been met with some resistance from state legislatures<sup>31</sup> and local zoning boards.<sup>32</sup>

There is no publicly available, definitive data on the number of cemeteries offering green burial in the United States, but the private

24. Marsh, *supra* note 6, at 18–19; Bridget Frame, *More Than 60% of Funeral Directors Nationwide Are About to Retire. Do You Want This Job?*, CAROLINA NEWS & REP. (Apr. 20, 2023), <https://perma.cc/N3BF-D4QD>.

25. Marsh, *supra* note 7, at 428.

26. See David E. Harrington, *Markets: Preserving Funeral Markets with Ready-to-Embalm Laws*, 21 J. ECON. PERSPS. 201, 201–02 (2007).

27. Marsh, *supra* note 6, at 8–9, 21.

28. See Harrington, *supra* note 26, at 215.

29. The Indicator From Planet Money, *The Growing Industry of Green Burials*, NPR, at 01:05 (Mar. 4, 2024), <https://perma.cc/62V5-4MV4>; Tanya D. Marsh & Joe L. Whalley, *An Eco-Conscious Farewell*, 59 WAKE FOREST L. REV. 941, 941–44 (2024).

30. See Yang, *supra* note 16.

31. Alex Brown, *More People Want a Green Burial, but Cemetery Law Hasn't Caught Up*, STATELINE (Nov. 20, 2019), <https://perma.cc/5U3M-CKPB>; see, e.g., Walker Orenstein, *Minnesota Paused 'Green Burials' Because of a Bitter Fight over a Cemetery in Carlton County. It Has Led to Questions of Religious Freedom*, MINNPOST (July 5, 2023), <https://perma.cc/WW9Y-KFKF>.

32. Elura Nanos, *'A Really Low Blow': Michigan Environmentalists Say Town Banned All Cemeteries to Stop Them from Opening 'Green Burial Ground,'* L. & CRIME (Jan. 23, 2024), <https://perma.cc/3UQS-T76L>.

Green Burial Council lists over 100 cemeteries that have been certified by the Council as green.<sup>33</sup> There is also no publicly available data on the number of consumers who opt for green burial, as opposed to casket burial. State burial and transit permits record the method of disposition, but typically do not differentiate between casket burial and green burial.<sup>34</sup> This lack of standardized record-keeping at the state level, of either green cemeteries or green burials, makes it difficult to measure consumer demand or supply.

The findings of this survey should therefore be very helpful for advocates of green burial, trying to make the case that consumer demand exists. Over half of respondents (57.7%) indicated that they were willing to consider green burial, making it one of the most popular considerations, second only to cremation, which 80.5% said they would be willing to consider. Nearly 40% of respondents (37.8%) ranked green burial as either their first or second choice, again second only to cremation which 62.7% ranked as either their first or second choice.

## II. SURVEY FINDINGS: BY METHOD OF DISPOSITION

### A. *Cremation*

Respondents were presented a definition of “cremation” as “the process in which a dead human body is placed inside a chamber that is heated to a very high temperature until the body is reduced to a powder known as ‘ashes.’” Every respondent indicated that they had “heard” of cremation, and 86% of respondents indicated that they knew someone who had been cremated. Those are not surprising responses, given the growing popularity of cremation in the twenty-first century.

More respondents indicated interest in cremation than any other method of disposition. 80.5% stated that they would consider cremation for themselves. The four generations that participated in the survey were consistent in their willingness to consider cremation.

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33. See *GBC-Certified Cemeteries in the United States, Canada and Central America*, GREEN BURIAL COUNCIL (2024), <https://perma.cc/U3Y6-QAQJ> (providing a list of over one hundred green cemeteries in the U.S.).

34. See, e.g., N.C. DEP'T OF HEALTH & HUM. SERVS. VITAL RECS., BURIAL-TRANSIT PERMIT (2007) (not recording the method of disposition at all); STATE OF FLA., DEP'T OF HEALTH, VITAL STATS., APPLICATION FOR BURIAL – TRANSIT PERMIT (1997) (recording the method of disposition with options for burial, storage, cremation, or other with a blank space to specify the type of disposition); STATE OF CAL., DEP'T OF PUB. HEALTH, OFF. OF VITAL RECS., APPLICATION AND PERMIT FOR DISPOSITION OF HUMAN REMAINS (2008) (recording the method of disposition with options that include “burial or scattering in a cemetery,” cremation, scientific use, and “scattering/burial at sea or disposition other than in a cemetery”).

TABLE 6. WOULD YOU CONSIDER CREMATION FOR YOURSELF?

Responses		Generation (Ages)			
Answer	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Yes	80.5%	81.4%	81.1%	78.2%	80.8%
No	19.5%	18.6%	18.9%	21.8%	19.2%

Willingness to consider cremation was also consistent across women and men, with 81.3% of women and 78.7% of men saying they would consider cremation for themselves.

Not only were respondents willing to consider cremation, when asked to rank their preferences for six methods of disposition, all four generations ranked cremation as their first choice more often than all the other methods. As a first choice, cremation was much more popular among Boomers (52.6%) than Gen Z (34.9%), but that disparity became less acute when looking at the generations' first and second choices. 69.2% of Boomers ranked cremation as their first or second choice, compared to 57% of Gen Z. A very small percentage of respondents, only 3.0%, rejected cremation entirely, that is, ranked it sixth.

TABLE 7. PERCENTAGE OF RESPONDENTS WHO RANKED CREMATION IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF?"

Responses		Generation (Ages) <sup>35</sup>			
Choice Rank	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
First Choice	41.5%	34.9%	40.2%	40.6%	52.6%
Second Choice	21.2%	22.1%	20.1%	25.7%	16.7%
First or Second Choice	62.7%	57.0%	60.3%	66.3%	69.3%
Third Choice	13.5%	12.8%	12.8%	17.8%	10.3%
Fourth Choice	11.9%	15.1%	15.2%	6.9%	7.7%

35. This survey uses the definitions of generations as adopted by the Pew Research Center. See Michael Dimock, *Defining Generations: Where Millennials End and Generation Z Begins*, PEW RSCH. CTR. (Jan. 17, 2019), <https://perma.cc/26D5-R7EJ> (defining Gen Z as people born from 1997 on, Millennials as people born between 1981 and 1996, Gen X as people born between 1965 and 1980, and Boomers as people born between 1946 and 1964).

Responses		Generation (Ages) <sup>35</sup>			
Choice Rank	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Fifth Choice	8.9%	9.3%	7.9%	8.9%	10.3%
Sixth Choice	3.0%	5.8%	3.7%	0.0%	2.6%

Respondent interest in cremation varied little based on political affiliation or racial or ethnic identity. Cremation remained the first choice of liberals (40.9%), moderates (43.0%), and conservatives (37.9%).<sup>36</sup> It was also the first choice of respondents who identified as White (41.5%), Black or African American (38.0%), and Asian or Asian American (51.1%).

Many observers of the funeral industry have posited that the “de-churching of America”<sup>37</sup> is partially responsible for the increase in the cremation rate.<sup>38</sup> Yet respondents who identified as Protestant and Roman Catholic were slightly more likely to rank cremation as their first choice than those who identified as Atheist, Agnostic, or Nothing in Particular.

TABLE 8. PERCENTAGE OF RESPONDENTS WHO RANKED CREMATION FIRST IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF?”

Religious Affiliation	Percentage
Roman Catholic	50.0%
Protestant	45.3%
Atheist	41.8%
Total	41.4%

36. Respondents were asked: “Where on the following scale of political orientation would you place yourself?” on a 7 point scale from 1 (extremely liberal) to 7 (extremely conservative). Respondents who answered 1-3 were considered “liberals,” respondents who answered 5-7 were considered “conservatives,” and respondents who answered 4 were considered “moderates.”

37. See Gregory A. Smith & Alan Cooperman, *Has the Rise of Religious ‘Nones’ Come to an End in the U.S.?*, PEW RSCH. CTR. (Jan. 24, 2024), <https://perma.cc/LTL9-QVE4> (noting rising number of individuals in U.S. who do not associate with religion).

38. NAT’L FUNERAL DIRS. ASS’N, THE 2017 NFDA CREMATION AND BURIAL REPORT: RESEARCH, STATISTICS AND PROJECTIONS 1 (2017) (“A surge in the number of Americans that no longer identify with any religion has contributed to the decline of the historically traditional funeral in America and the rise in cremation as the disposition of choice.”); David Sloane, *Most Americans Today Are Choosing Cremation – Here’s Why Burials Are Becoming Less Common*, CONVERSATION (July 22, 2022), <https://perma.cc/KS87-QPC8>.

<b>Religious Affiliation</b>	<b>Percentage</b>
Nothing in Particular	41.4%
Agnostic	36.7%

It should be noted that although cremation was the most popular of the six methods of disposition in the survey, the percentage of respondents who ranked it first is far lower than the actual cremation rate in the United States. In 2022, the most recent year for which statistics are available, 59.0% of those who died in the United States were cremated.<sup>39</sup> The actual cremation rate is much closer to the percentage of those who ranked cremation as their first or second choice (62.7%). It may therefore be useful to consider the second choice of those who ranked cremation first, and the first choice for those who ranked cremation second.

TABLE 9. SECOND CHOICE OF RESPONDENTS WHO RANKED CREMATION FIRST IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

<b>Method</b>	<b>Percentage</b>
Casket Burial	24.7%
Water Cremation	22.5%
Green Burial	21.3%
Donation to Science	20.8%
Natural Organic Reduction	10.7%

Less than half of those who picked cremation as their first choice (45.5%) picked casket burial or donation to science, both widely available existing alternatives, as their second choice. Therefore, the majority of those who ranked cremation first ranked the not yet widely available disposition methods of green burial, water cremation, or natural organic reduction second. What impact might the increased availability of these methods of disposition have on the cremation rate?

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39. 2024 CANA REPORT, *supra* note 3, at 11.

TABLE 10. FIRST CHOICE OF RESPONDENTS WHO RANKED CREMATION SECOND IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

Method	Percentage
Casket Burial	42.9%
Donation to Science	31.9%
Green Burial	13.2%
Water Cremation	6.6%
Natural Organic Reduction	5.5%

Those who ranked cremation second were far more likely to pick one of the widely available methods of disposition, casket burial, or donation to science as their first choice. But one-fourth of respondents who ranked cremation second chose a less widely available method of disposition as their first choice. As green burial, water cremation, and natural organic reduction become more available across the country, this suggests that the cremation rate may be impacted.<sup>40</sup>

### B. *Casket Burial*

In the year 2000, the cremation rate in the United States was 26%, the first year that more than one-fourth of Americans were cremated.<sup>41</sup> Until the twenty-first century, the vast majority of Americans were buried.<sup>42</sup> Over time, the technology of burial evolved. From the 1700s through the 1900s, Americans were typically buried in wooden caskets.<sup>43</sup> Modern embalming became more popular after the Civil War and became the norm by the middle of the twentieth century.<sup>44</sup> In the mid-twentieth century, metal caskets also became more popular in the United States, making up more than 60% of the caskets used by the end of the twentieth century.<sup>45</sup> Given the evolution in burial technology and the need to differentiate the typical modern burial from green burial, respondents were presented with the term “casket burial,” which was defined as “the placement of a

40. Yang, *supra* note 16 (mapping increase in alternative death care options).

41. 2024 CANA REPORT, *supra* note 3, at 22.

42. See Eliza Gallo, *What We Think About Death and Funerals Is Changing*, USC TODAY (June 28, 2018), <https://perma.cc/9DPG-GMNU> (discussing changes in American funeral and death practices).

43. See Sarah Hayes, *From Coffins to Caskets: An American History*, COFFIN WORKS (July 26, 2017), <https://perma.cc/HQ5V-MR5B>.

44. See *The Evolution of Funeral Caskets and Coffins Through the Years*, OVERNIGHT CASKETS (June 10, 2024), <https://perma.cc/BRQ9-TZRC>; Tanya D. Marsh, *Jessica Mitford Was Wrong*, 8 WAKE FOREST J.L. & POL’Y 111, 119 (2018).

45. See *A Brief History of Caskets*, NORTHWOODS CASKET CO. (Mar. 4, 2011), <https://perma.cc/SQ9B-DW4T>.

dead human body in a specially designed box called a casket, which is then buried in the ground or kept above ground in a building called a mausoleum.”

Respondents showed a nearly universal familiarity with casket burial, which is not surprising. Almost every respondent indicated that they had “heard” of casket burial (99.3%), and 94.2% indicated that they knew someone who was given a casket burial.

But even though respondents were very familiar with casket burial, just over half (51.6%) were willing to consider it for themselves. There was some notable variation among the generations—65.1% of Gen Z was willing to consider casket burial, but only 29.5% of Boomers were willing to do so. This data suggests the need for future research to better understand whether views of casket burial change over a person’s lifetime, or if Gen Z has a fundamentally different view of casket burial than the Boomers.

TABLE 11. WOULD YOU CONSIDER CASKET BURIAL FOR YOURSELF?

Response		Generation (Ages)			
Answer	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Yes	51.6%	65.1%	53.7%	54.5%	29.5%
No	48.4%	34.9%	46.3%	45.5%	70.5%

Men were more willing to consider casket burial (57.9%) than women (48.9%).

Although a majority of respondents were willing to consider casket burial, only one-fifth (21.4%) of respondents ranked casket burial as their first choice among the six disposition options. Again, Gen Z preferred casket burial as both a first choice and a first or second choice markedly more than the Boomers. There was little difference between Millennials and Gen X.

It is interesting to note that one in four respondents (ranging from 17.4% of Gen Z and 39.7% of Boomers) absolutely rejected casket burial, ranking it their sixth choice out of six choices. In fact, more respondents ranked casket burial as one of their last two choices (41.7%) than one of their first two choices (35.4%). Fifty-five percent of Boomers ranked casket burial as one of their last two choices. That is a fairly clear indication that consumers are interested in options other than casket burial.

TABLE 12. PERCENTAGE OF RESPONDENTS WHO RANKED CASKET BURIAL IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

Response		Generation (Ages)			
Choice Rank	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
First Choice	21.4%	27.9%	19.5%	22.8%	16.7%
Second Choice	14.0%	14.0%	16.5%	15.8%	6.4%
First or Second Choice	35.4%	41.9%	36.0%	38.6%	23.1%
Third Choice	12.4%	11.6%	14.0%	9.9%	12.8%
Fourth Choice	10.5%	11.6%	9.8%	11.9%	9.0%
Fifth Choice	15.4%	17.4%	15.9%	12.9%	15.4%
Sixth Choice	26.3%	17.4%	24.4%	26.7%	39.7%

Liberals were significantly less likely (11.1%) than conservatives (37.7%) to choose casket burial as their first choice. Liberals were also significantly less likely than conservatives to consider casket burial for themselves. On average, race does not predict likelihood to choose casket burial as their first choice. However, when comparing those who identified as Black or African American to those who identified as White, Black participants were significantly more likely than White participants to choose casket burial as their first choice. Approximately 19% of respondents who identified as White and 17% of respondents who identified as Asian or Asian American ranked casket burial as their first choice, compared to 34% of respondents who identified as Black or African American. Religious identity was correlated with varying levels of interest in casket burial. Casket burial was most popular among those who self-identified as Christian.



TABLE 13. PERCENTAGE OF RESPONDENTS WHO RANKED CASKET BURIAL FIRST IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

<b>Religious Affiliation</b>	<b>Percentage</b>
Protestant	34.8%
Roman Catholic	28.0%
Total	21.4%
Nothing in Particular	15.7%
Atheist	9.1%
Agnostic	7.8%

One question about the rising availability of green burial, natural organic reduction, and water cremation is how they will impact both the cremation rate and the rate of casket burial. It is therefore interesting to look at the other choices of those who ranked casket burial as their first or second choice.

The most common second choice for those who preferred casket burial was cremation. Casket burial and cremation are very different methods of disposition but are both the most established and well-known methods of disposition.<sup>46</sup> The second most common second choice for those who preferred casket burial was green burial. For approximately one-third of respondents, therefore, it may be that their primary concern is burial, and their secondary concern is type of burial.

TABLE 14. SECOND CHOICE OF RESPONDENTS WHO RANKED CASKET BURIAL FIRST IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

<b>Method</b>	<b>Percentage</b>
Cremation	42.4%
Green Burial	33.7%
Donation to Science	12.0%
Natural Organic Reduction	9.8%
Water Cremation	2.2%

46. See *Life File: Funeral and Body Disposition Arrangements*, DEATH WITH DIGNITY (2024), <https://perma.cc/2L65-GCXY>.

Nearly three-fourths of respondents who ranked casket burial second also ranked cremation first.

TABLE 15. FIRST CHOICE OF RESPONDENTS WHO RANKED CASSET BURIAL SECOND IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

Method	Percentage
Cremation	73.3%
Green Burial	16.7%
Donation to Science	10.0%
Natural Organic Reduction	0%
Water Cremation	0%

Approximately 19% of respondents chose either cremation/casket burial or casket burial/cremation. That suggests that fewer than one in four respondents are content with the two options that are universally legal. Three in four respondents ranked at least one other method of disposition first or second.

### C. *Green Burial*

There is no legal definition of green burial, and private definitions vary.<sup>47</sup> Respondents in the survey were provided with the following definition of green burial: “the burial of a dead human body which has not been treated with chemicals, either directly in the ground or in a biodegradable container which is then buried in the ground.”

Only 40% of respondents indicated that they had “heard” of green burial, and less than 5% (4.7%) reported that they knew someone who had been given a green burial. However, 57.7% of respondents stated that they would consider green burial for themselves. Willingness to consider green burial was relatively consistent between generations, although Boomers were the least willing to consider the method of disposition.

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47. See, e.g., *Green Burial Defined*, GREEN BURIAL COUNCIL (2024), <https://perma.cc/6L6T-Q3CX>.

TABLE 16. WOULD YOU CONSIDER GREEN BURIAL FOR YOURSELF?

Response		Generation (Ages)			
Answer	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Yes	57.7%	58.1%	62.2%	59.4%	46.2%
No	42.3%	41.9%	37.8%	40.6%	53.8%

Men were slightly more willing to consider green burial (61.8%) than women (51.9%).

There is very little public data available regarding the demand for green burial.<sup>48</sup> The National Funeral Directors Association (NFDA) conducts an annual Consumer Preferences and Awareness Survey of Americans 40 years old and over.<sup>49</sup> For the past three years, the NFDA survey has asked, “Which of the following do you think you would prefer yourself?” and provided five methods of disposition, plus “other” and “not sure.”<sup>50</sup> Between 2020 and 2023, the number of respondents choosing “green burial” or “green/natural burial” has varied from a low of 8.5% to a high of 13.9%.<sup>51</sup>

Our survey revealed even stronger interest. Nearly 4 in 10 respondents ranked green burial as their first or second choice for disposition, making green burial the second most popular choice

48. The National Funeral Directors Association has included a question on its annual Consumers Awareness and Preferences Survey regarding “interest in ‘green’ or ‘eco friendly’ or natural burial funeral services. In 2023, 60% of respondents indicated that they would be “interested in exploring ‘green’ funeral options. Deana Gillespie & Edward J. Defort, *Inside the 2023 NFDA Consumer Awareness and Preferences Survey (Part 4)*, 14 MEM’L BUS. J. 1, 5 (2023) [hereinafter *2023 NFDA Survey*]. Less than 20% of respondents stated that they would “not be interested in exploring ‘green’ funeral options at this time.” *Id.*

49. *NFDA Consumer Survey: Funeral Planning Not a Priority for Americans*, ARIZ. FUNERAL, CEMETERY & CREMATION ASS’N (July 23, 2017), <https://perma.cc/7669-W5T6> (“The [NFDA] Consumer Awareness and Preferences Study is conducted annually to measure consumer perceptions of funeral services. Invitations are emailed to a consumer panel consisting of Americans age 40 and older . . .”).

50. *2023 NFDA Survey*, *supra* note 48, at 5; Deana Gillespie & Edward J. Defort, *Inside the 2020 NFDA Consumer Awareness and Preferences Survey Part 4*, 11 MEM’L BUS. J. 1, 4 (2020) [hereinafter *2020 NFDA Survey*]; Deana Gillespie & Edward J. Defort, *Inside the 2021 NFDA Consumer Awareness and Preferences Survey, Part 4*, 12 MEM’L BUS. J. 1, 2 (2021) [hereinafter *2021 NFDA Survey*]; Deana Gillespie & Edward J. Defort, *Inside the 2023 NFDA Consumer Awareness and Preferences Survey (Part 4)*, 13 MEM’L BUS. J. 1, 3 (2022) [hereinafter *2022 NFDA Survey*].

51. *2020 NFDA Survey*, *supra* note 50, at 4; *2021 NFDA Survey*, *supra* note 50, at 2; *2022 NFDA Survey*, *supra* note 50, at 3; *2023 NFDA Survey*, *supra* note 48, at 5.

overall, only behind cremation. Interest across generations was fairly consistent, with the greatest interest from Millennials.

TABLE 17. PERCENTAGE OF RESPONDENTS WHO RANKED GREEN BURIAL IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

Response		Generation (Ages)			
Choice Rank	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
First Choice	11.2%	9.3%	14.0%	12.9%	5.1%
Second Choice	26.6%	27.9%	27.4%	22.8%	28.2%
First or Second Choice	37.8%	37.2%	41.4%	35.7%	33.3%
Third Choice	18.9%	16.3%	15.2%	23.8%	23.1%
Fourth Choice	20.0%	20.9%	22.6%	14.9%	20.5%
Fifth Choice	17.2%	17.4%	15.2%	19.8%	17.9%
Sixth Choice	6.1%	8.1%	5.5%	5.9%	5.1%

Liberals were significantly more likely than conservatives to consider green burial for themselves. 13.3% of liberals identified green burial as their first choice, compared to 9.2% of moderates and 8.5% of conservatives. There was little variability based on racial or ethnic identity. Nearly 12% of respondents who identified as White and 10% of respondents who identified as Black or African American ranked green burial as their first choice, compared to 6.4% of respondents who identified as Asian or Asian American.

Although respondents who identified as Protestant, Roman Catholic, and Jewish were far more likely to prefer casket burial than those who identified as Agnostic, Atheist, and Nothing in Particular, the reverse is true with respect to green burial as Agnostic, Atheist, and “Nothing in Particular” respondents were slightly more likely to rank green burial first. This is a fascinating data point since green burial mimics the same process that was used by Christian people for thousands of years. Somewhat surprisingly given the Catholic Church’s strong preference for burial over cremation,<sup>52</sup> more respondents who identified as Roman Catholic preferred cremation to casket burial and green burial combined.

52. See, e.g., *Catholic Teachings on Cremation*, CATH. CEMETERIES ARCHDIOCESE PHILA. (Aug. 2, 2023), <https://perma.cc/VNR9-3ZCP>.

TABLE 18. PERCENTAGE OF RESPONDENTS WHO RANKED GREEN BURIAL FIRST IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

<b>Religious Affiliation</b>	<b>Percentage</b>
Agnostic	14.4%
Nothing in Particular	12.9%
Atheist	12.7%
Total	11.2%
Protestant	7.8%
Roman Catholic	8.0%

It should be noted, however, that when the first and second choices are combined, the interest in green burial appears strong across each of these categories of religious identity.

TABLE 19. PERCENTAGE OF RESPONDENTS WHO RANKED GREEN BURIAL FIRST OR SECOND IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

<b>Religious Affiliation</b>	<b>Percentage</b>
Agnostic	42.2%
Nothing in Particular	47.1%
Total	37.7%
Atheist	32.7%
Protestant	32.2%
Roman Catholic	28.0%

Nearly half (43.8%) of respondents who ranked green burial as their first-choice method of disposition chose natural organic reduction as their second choice. This makes sense, since both methods of disposition involve natural decomposition of human remains and may be understood to be the most environmentally friendly methods of disposition.

TABLE 20. SECOND CHOICE OF RESPONDENTS WHO RANKED GREEN BURIAL FIRST IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

<b>Method</b>	<b>Percentage</b>
Natural Organic Reduction	43.8%

<b>Method</b>	<b>Percentage</b>
Cremation	25.0%
Casket Burial	20.8%
Donation to Science	6.3%
Water Cremation	4.2%

Respondents who ranked green burial as their second choice were almost evenly split between ranking cremation, natural organic reduction, and casket burial as their first choice. Again, preference for natural organic reduction perhaps most clearly aligns with preference for green burial. There did not appear to be much alignment between green burial and water cremation.

TABLE 21. FIRST CHOICE OF RESPONDENTS WHO RANKED GREEN BURIAL SECOND IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

<b>Method</b>	<b>Percentage</b>
Cremation	33.3%
Natural Organic Reduction	28.9%
Casket Burial	27.2%
Donation to Science	7.9%
Water Cremation	2.6%

#### *D. Water Cremation*

The survey used the following definition of water cremation: "Water cremation' (aka alkaline hydrolysis or aquamation) is a process in which a dead human body is placed in a chamber that is filled with a mixture of water and chemicals, which is then heated and pressurized until the body is reduced to liquid and a powder known as 'ashes.'" Respondents indicated a fairly low familiarity with the term. Only 13.5% reported that they had "heard" of water cremation. A mere 2.3% of Respondents indicated that they knew someone who had been water cremated. Yet 42.3% of Respondents stated that they would consider water cremation for themselves.

TABLE 22. WOULD YOU CONSIDER WATER CREMATION FOR YOURSELF?

Response		Generation (Ages)			
Answer	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Yes	42.3%	39.5%	44.5%	45.5%	37.2%
No	57.7%	60.5%	55.5%	54.5%	62.8%

Men were slightly more willing to consider water cremation (44.9%) than women (39.1%).

A fairly modest percentage of respondents ranked water cremation as their first or second choice (13.3%). Interestingly, Gen X was least interested in water cremation, both as a first and a second choice. This finding is generally consistent with the low level of interest in “alkaline hydrolysis” expressed by participants in the NFDA annual Consumer Preferences and Awareness Survey (NFDA survey), ranging from 1.1% to 2.5% between 2020 and 2023.<sup>53</sup>

TABLE 23. PERCENTAGE OF RESPONDENTS WHO RANKED WATER CREMATION IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

Response		Generation (Ages)			
Choice Rank	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
First Choice	2.8%	3.5%	3.7%	1.0%	2.6%
Second Choice	10.5%	8.1%	12.8%	6.9%	12.8%
First or Second Choice	13.3%	11.6%	16.5%	7.9%	15.4%
Third Choice	20.5%	24.4%	20.1%	20.8%	16.7%
Fourth Choice	22.6%	16.3%	20.7%	27.7%	26.9%
Fifth Choice	26.1%	29.1%	23.8%	30.7%	21.8%
Sixth Choice	17.5%	18.6%	18.9%	12.9%	19.2%

53. 2020 NFDA Survey, *supra* note 50, at 4; 2021 NFDA Survey, *supra* note 50, at 2; 2022 NFDA Survey, *supra* note 50, at 3; 2023 NFDA Survey, *supra* note 48, at 5.

Protestants and Catholics were significantly less likely to consider water cremation for themselves than those who defined themselves as “Agnostic,” “Atheist,” or “Nothing in Particular.” No respondents who identified as Roman Catholic ranked water cremation as their first choice, and only 1.1% of respondents who identified as Protestant did so. Atheists (5.5%) and Agnostics (4.4%), however, were more interested in water cremation.

TABLE 24. PERCENTAGE OF RESPONDENTS WHO RANKED WATER CREMATION FIRST IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

<b>Religious Affiliation</b>	<b>Percentage</b>
Atheist	5.5%
Agnostic	4.4%
Total	2.8%
Nothing in Particular	1.4%
Protestant	0.9%
Roman Catholic	0%

The data on the secondary preferences for those who chose water cremation first, or the primary preferences for those who chose water cremation second, are very interesting and suggest that respondents considered water cremation to be a substitute for cremation, and vice versa. Natural organic reduction was the second choice for 16.7% of those whose first choice was water cremation, but not a single person chose natural organic reduction as their first choice and water cremation as their second choice.

TABLE 25. SECOND CHOICE OF RESPONDENTS WHO RANKED WATER CREMATION FIRST IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

<b>Method</b>	<b>Percentage</b>
Cremation	50.0%
Green Burial	25.0%
Natural Organic Reduction	16.7%
Donation to Science	8.3%
Casket Burial	0%



TABLE 26. FIRST CHOICE OF RESPONDENTS WHO RANKED WATER CREMATION SECOND IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

Method	Percentage
Cremation	88.9%
Green Burial	4.4%
Casket Burial	4.4%
Donation to Science	2.2%
Natural Organic Reduction	0%

*E. Natural Organic Reduction (NOR)*

For clarity, the survey did not use the legally correct term “natural organic reduction” and instead used the more descriptive term “human composting.” Respondents were presented with the following definition: “Human’ composting (aka natural organic reduction) is a process in which a dead human body is placed in a container filled with natural materials and microorganisms that break down the body into soil.” Nearly 40% of respondents (38.6%) indicated that they had heard of NOR, but only 1.9% of respondents stated that they knew someone who had been composted. Nearly 50% of respondents (48.8%) indicated that they would consider NOR for themselves.

TABLE 27. WOULD YOU CONSIDER NATURAL ORGANIC REDUCTION FOR YOURSELF?

Response		Generation (Ages)			
Answer	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Yes	48.8%	48.8%	54.9%	45.5%	41.0%
No	51.2%	51.2%	45.1%	54.5%	59.0%

Millennials were slightly more willing to consider NOR than Gen Z and Gen X, while Boomers were the least willing to consider it. That same pattern repeated when respondents were asked to rank order NOR. This study revealed even stronger support for NOR than the NFDA survey. That survey sometimes referred to NOR as “human composting.” From 2020 through 2023, between 4.0% and 6.1% of respondents in that survey selected it as their preferred method of

disposition.<sup>54</sup> The NFDA survey is limited to respondents over the age of 40;<sup>55</sup> their numbers are fairly consistent with this survey's results for Gen X and Boomers but missed the stronger support among Gen Z and Millennials.

TABLE 28. PERCENTAGE OF RESPONDENTS WHO RANKED NATURAL ORGANIC REDUCTION IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

Response		Generation (Ages)			
Choice Rank	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
First Choice	9.6%	11.6%	12.2%	5.9%	6.4%
Second Choice	14.9%	15.1%	15.2%	14.9%	14.1%
First or Second Choice	24.5%	26.7%	27.4%	20.8%	20.5%
Third Choice	18.2%	18.6%	19.5%	15.8%	17.9%
Fourth Choice	20.0%	23.3%	17.1%	19.8%	23.1%
Fifth Choice	19.8%	17.4%	19.5%	18.8%	24.4%
Sixth Choice	17.5%	14.0%	16.5%	24.8%	14.1%

Protestants and Roman Catholics were significantly less likely to rank NOR as their first choice or consider it for themselves than Atheists, Agnostics, or those who responded "Nothing in Particular." The United States Conference of Catholic Bishops has stated that natural organic reduction "fail[s] to satisfy the Church's requirements for proper respect for the bodies of the dead" because "[a]t the end of the human composting process, the body has completely decomposed along with accompanying plant matter to yield a single mass of compost, with nothing distinguishably left of the body to be laid to

54. 2020 NFDA Survey, *supra* note 50, at 4; 2021 NFDA Survey, *supra* note 50, at 2; 2022 NFDA Survey, *supra* note 50, at 3; 2023 NFDA Survey, *supra* note 48, at 5.

55. ARIZ. FUNERAL, CEMETERY & CREMATION ASS'N, *supra* note 49.

rest in a sacred place.”<sup>56</sup> Catholic organizations have opposed efforts to legalize natural organic reduction in several states.<sup>57</sup>

TABLE 29. PERCENTAGE OF RESPONDENTS WHO RANKED NATURAL ORGANIC REDUCTION FIRST IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

<b>Religious Affiliation</b>	<b>Percentage</b>
Agnostic	17.8%
Nothing in Particular	17.1%
Total	9.6%
Atheist	7.3%
Protestant	3.5%
Roman Catholic	2.0%

The strong alignment between green burial and natural organic reduction was already noted above. Even though many state legislatures are considering water cremation and natural organic reduction similarly with respect to legalization and regulation, respondents clearly differentiated between them.<sup>58</sup> Fans of cremation were more likely to be interested in the alternative of water cremation. Fans of green burial were more likely to be interested in natural organic reduction.

TABLE 30. SECOND CHOICE OF RESPONDENTS WHO RANKED NATURAL ORGANIC REDUCTION FIRST IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

<b>Method</b>	<b>Percentage</b>
Green Burial	80.5%
Cremation	12.2%
Donation to Science	73%
Casket Burial	0%

56. *U.S. Bishops’ Doctrine Committee Issues Statement on the Proper Disposition of Bodily Remains*, U.S. CONF. CATH. BISHOPS (Mar. 23, 2023), <https://perma.cc/QR4W-KDJL>.

57. See Alejandra Molina, *The Catholic Church Opposes Composting Human Remains — but It’s Becoming Legal in More States*, AM. MAG. (July 13, 2021), <https://perma.cc/LH55-AKZN>.

58. *Id.*; see also Marlaena Gonzales, *Where Aquamation and Human Composting May Be Legal Next*, CREMATION.GREEN (Apr. 24, 2024), <https://perma.cc/9FEL-HZEG>.

Method	Percentage
Water Cremation	0%

The pattern for first choices of respondents who ranked natural organic reduction second is similar to the pattern for those who ranked green burial first, however, those who ranked natural organic reduction second preferred even donation to science above casket burial. None of those who ranked natural organic reduction first considered casket burial to be an acceptable second choice.

TABLE 31. FIRST CHOICE OF RESPONDENTS WHO RANKED NATURAL ORGANIC REDUCTION SECOND IN RESPONSE TO QUESTION: "PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF"

Method	Percentage
Green Burial	32.8%
Cremation	29.7%
Donation to Science	20.3%
Casket Burial	14.1%
Water Cremation	3.1%

#### F. *Donation to Science*

Respondents were provided with the following definition: "Donation to science' means that a dead human body is given to a medical school or other organization that uses the body, in whole or in part, for medical research and/or education. Following that use, the body is typically cremated and 'ashes' are returned to the family." Donation to science received strong consideration—52.1% overall and 62.8% from Boomers.

TABLE 32. WOULD YOU CONSIDER DONATION TO SCIENCE FOR YOURSELF?

Response		Generation (Ages)			
Answer	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Yes	52.1%	52.3%	47.0%	52.5%	62.8%
No	47.9%	47.7%	53.0%	47.5%	37.2%

Men were more willing to consider donating their remains to science (56.7%) than women (48.5%). Interest remained strong when respondents were asked to rank order their choices. More than one in

four respondents ranked donation to science as their first or second choice, again with Boomers being more likely to do so. However, the rejection of donation to science (i.e., those ranking it sixth) was even starker than the rejection of casket burial. Nearly one-third of respondents ranked donation to science last.

TABLE 33. PERCENTAGE OF RESPONDENTS WHO RANKED DONATION TO SCIENCE IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

Response		Generation (Ages)			
Choice Rank	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
First Choice	13.5%	12.8%	10.4%	16.8%	16.7%
Second Choice	12.8%	12.8%	7.9%	13.9%	21.8%
First or Second Choice	26.3%	25.6%	18.3%	30.7%	38.5%
Third Choice	16.6%	16.3%	18.3%	11.9%	19.2%
Fourth Choice	14.9%	12.8%	14.6%	18.8%	12.8%
Fifth Choice	12.6%	9.3%	17.7%	8.9%	10.3%
Sixth Choice	29.6%	36.0%	31.1%	29.7%	19.2%

On average, race does not predict likelihood to consider donation to science. But when comparing those who identified as Black or African American to those who identified as White, Black participants were significantly less likely to consider donation to science for themselves. That correlation is worthy of further investigation. It is not, however, surprising, given the history of remains of marginalized people being used for dissection and medical training without consent.<sup>59</sup>

59. See, e.g., Drew H. Culler, *The Invisible Dead, a Silent Epidemic: Violating the Right of Sepulcher Through Scientific Experimentation and Mass Disposal of Unclaimed Human Remains*, 7 WAKE FOREST J.L. & POL'Y 295, 295–96 (2017); Susan C Lawrence & Susan E Lederer, *Medical Specimens and the Erasure of Racial Violence: The Case of Harriet Cole*, 49 MED. HUMS. 457, 457 (2023) (describing story of Harriet Cole to shed light on “medical racism” and non-consensual dissection of marginalized individuals).

TABLE 34. RACIAL OR ETHNIC IDENTITY OF RESPONDENTS WHO RANKED DONATION TO SCIENCE FIRST OR SIXTH IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

	Total	White	Black or African American	Asian or Asian American
<i>Ranked donation to science first</i>	13.5%	14.6%	6.0%	12.8%
<i>Ranked donation to science sixth</i>	29.5%	26.9%	60.0%	23.4%

The phrase “donation to science” could include transferring human remains to either a medical school for use in their gross anatomy lab or to a so-called “body broker.” Both types of donation have been the subject of recent controversy. In 2023, the manager of the Harvard Medical School morgue was charged with federal crimes following allegations that he sold human remains, in whole and in part, that had been donated to the school.<sup>60</sup> Body brokers have also been the subject of controversy, including a six-part expose published by Reuters in 2017.<sup>61</sup> Further inquiry would be useful to determine whether respondents’ familiarity with these news stories impacted their willingness to donate their bodies to science.

It was also interesting that Protestants and Roman Catholics were significantly less likely to consider donation to science than those who defined themselves as “Agnostic,” “Atheist,” or “Nothing in Particular.” Historically, burial was the preferred method of disposition of human remains for Christians.<sup>62</sup> Further investigation would be necessary to better understand why respondents were more or less willing to donate their remains.

60. Michael Levenson, *Harvard Medical School Morgue Manager Sold Body Parts*, *U.S. SAYS*, N.Y. TIMES (June 14, 2023), <https://www.nytimes.com/2023/06/14/us/harvard-medical-school-body-parts.html>.

61. See Brian Grow & John Shiffman, *Cashing In on the Donated Dead: The Body Trade*, REUTERS (Oct. 24, 2017), <https://www.reuters.com/investigates/special-report/usa-bodies-brokers/> (Part 1 of the expose).

62. See *Christian Funeral*, FUNERAL PARTNERS (2024), <https://perma.cc/J4JL-HCDN>.

TABLE 35. PERCENTAGE OF RESPONDENTS WHO RANKED DONATION TO SCIENCE FIRST IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

<b>Religious Affiliation</b>	<b>Percentage</b>
Atheist	23.6%
Agnostic	18.9%
Total	13.5%
Roman Catholic	12.0%
Nothing in Particular	11.4%
Protestant	7.8%

Half of respondents who ranked donation to science first chose cremation as their second choice. Interestingly, almost a quarter of them chose natural organic reduction as their second choice.

TABLE 36. SECOND CHOICE OF RESPONDENTS WHO RANKED DONATION TO SCIENCE FIRST IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

<b>Method</b>	<b>Percentage</b>
Cremation	50.0%
Natural Organic Reduction	22.4%
Green Burial	15.5%
Casket Burial	10.3%
Water Cremation	1.7%

A majority of respondents who ranked donation to science second ranked cremation as their first choice. Casket burial was a distant second.

TABLE 37. FIRST CHOICE OF RESPONDENTS WHO RANKED DONATION TO SCIENCE SECOND IN RESPONSE TO QUESTION: “PLEASE RANK YOUR PREFERENCE FOR THE FOLLOWING TYPES OF DISPOSITION FOR YOURSELF”

<b>Method</b>	<b>Percentage</b>
Cremation	67.3%
Casket Burial	20.0%
Natural Organic Reduction	5.5%
Green Burial	5.5%

Method	Percentage
Water Cremation	1.8%

### III. EMBALMING

In addition to asking respondents their views on six methods of disposition, the survey also asked respondents about their views on embalming. The survey defined embalming as “the process of injecting a dead human body with chemicals to temporarily slow down the natural decay of the body.” Nearly all respondents (96.7%) stated that they had heard of embalming. The vast majority of respondents (72.1%) indicated that they knew someone who had been embalmed. But stunningly, only 37.2% of respondents indicated that they would consider embalming for themselves.

TABLE 38. WOULD YOU CONSIDER EMBALMING FOR YOURSELF?

Response		Generation (Ages)			
Answer	Total	Gen Z (18-27)	Millennials (28-43)	Gen X (44-59)	Boomers (60-78)
Yes	37.2%	36.0%	35.4%	48.5%	28.2%
No	62.8%	64.0%	64.6%	51.5%	71.8%

Women were much more likely than men to consider embalming for themselves (43.0% versus 32.6%).

### CONCLUSION

American attitudes towards death care have changed radically over the past several decades, as the shift from casket burial to cremation demonstrates.<sup>63</sup> This new survey strongly suggests that attitudes will continue to change in dramatic ways. Evidence of strong respondent interest in new methods of disposition—particularly natural organic reduction and green burial—should support efforts to legalize and expand access. Evidence of diminishing interest in casket burial and embalming should spur efforts to modernize the occupational licensing regime, to de-emphasize embalming education and technology.

63. See Gallo, *supra* note 42.