

RECOMMENDED FOR PUBLICATION
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File Name: 24a0268p.06

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

INCOAL, INC.; OLD REPUBLIC INSURANCE COMPANY,
Petitioners,

v.

DIRECTOR, OFFICE OF WORKERS' COMPENSATION
PROGRAMS, U.S. DEPARTMENT OF LABOR; JUDY
SHEPHERD, widow of Randell Shepherd,
Respondents.

No. 23-3706

On Petition for Review from the Benefits Review Board.
No. 22-0109 BLA.

Decided and Filed: December 16, 2024

Before: MOORE, THAPAR, and DAVIS, Circuit Judges.

COUNSEL

ON BRIEF: Michael A. Pusateri, Mark E. Solomons, GREENBERG TRAUERIG, LLP, Washington, D.C., for Petitioner. Kathleen H. Kim, UNITED STATES DEPARTMENT OF LABOR, Washington, D.C., for Federal Respondent. Jacob Thomas Moak, MOAK & NUNNERY, P.S.C., Prestonsburg, Kentucky, for Respondent Shepherd.

MOORE, J., delivered the opinion of the court in which DAVIS, J., concurred, and THAPAR, J., concurred in the judgment. THAPAR, J. (pp. 29–32), delivered a separate concurring opinion.

OPINION

KAREN NELSON MOORE, Circuit Judge. This case raises familiar issues. Randell Shepherd, a career coal miner, brought a claim for benefits under the Black Lung Benefits Act and invoked the Act’s presumption that—because he had mined for over fifteen years and was totally disabled by a combination of chronic obstructive pulmonary disease (“COPD”), bronchitis, and emphysema—he was entitled to federal benefits for disability due to pneumoconiosis, also known as coal worker’s black lung. Incoal, Inc., Shepherd’s most recent coal-mining employer and the operator potentially liable for his benefits, challenged his entitlement to those benefits, submitting expert reports that, according to Incoal, demonstrated that Shepherd’s smoking history and not his mining history was the cause of his disability. An administrative law judge (“ALJ”) found that Incoal’s expert opinions were not well reasoned or documented, first, because they conflicted with the Act’s regulations and underlying principles as described in the preamble to the Act’s implementing regulations and, second, because the opinions were internally inconsistent and unreasoned. Incoal had, the ALJ held, failed to rebut the presumption that Shepherd was entitled to coal miners’ benefits. Incoal appealed to the Benefits Review Board (“BRB” or “Board”), which affirmed the ALJ’s decision.

Incoal now petitions this court for review, arguing that the ALJ improperly credited the Act’s regulatory preamble over Incoal’s allegedly “universal proof” against entitlement and that the ALJ converted the Act’s rebuttable presumption into a de facto irrebuttable presumption in violation of the Constitution and Administrative Procedure Act (“APA”).

None of Incoal’s arguments are novel; we have repeatedly held that an ALJ may, in its capacity as the trier of fact, determine an expert’s credibility with reference to scientific principles that, as part of the deliberative rulemaking process, the Department of Labor (“the Department” or “DOL”) thoroughly examined through the regulatory process and endorsed in the preamble. The ALJ in this case did nothing different. It is also a matter of settled law, pursuant to Supreme Court precedent, that the Act’s rebuttable presumption is constitutional

because it is based on a rational relationship between the length of a miner's career and their risk for pneumoconiosis. For these reasons, and because Incoal here attempts to rehash scientific disputes the coal industry lost long ago, we conclude that the ALJ's decision applied the correct legal principles and was supported by substantial evidence. We therefore **DENY** review.

I. BACKGROUND

A. Legal Background—The Black Lung Benefits Act & Regulations

1. Benefits Entitlement

The Black Lung Benefits Act (“BLBA”), which is administered by the Department’s Office of Workers’ Compensation Programs (“OWCP”), was enacted by Congress in 1969. 30 U.S.C. §§ 901, 903(a), 921; 20 C.F.R. §§ 718.1, 718.101. It provides benefits to coal miners (or, if deceased, their beneficiaries) who are totally disabled because of coal-dust exposure and resulting pneumoconiosis, sometimes called “black lung.” *See* 30 U.S.C. § 901(a). A claimant is entitled to benefits under the BLBA if they are “(1) a coal miner [or qualified beneficiary of one] (2) who suffers from pneumoconiosis (3) arising out of his coal mine employment and (4) causing (5) his total disability.” *Big Branch Res., Inc. v. Ogle*, 737 F.3d 1063, 1069 (6th Cir. 2013); 20 C.F.R. § 725.202(d).

The BLBA regulations recognize two types of qualifying pneumoconiosis, only one of which is relevant here:¹ “[L]egal pneumoconiosis’ includes any chronic lung disease or impairment and its sequelae arising out of coal mine employment.” 20 C.F.R. § 718.201(a)(2). The regulations explicitly provide that “[t]his definition includes, but is not limited to, any chronic restrictive or obstructive pulmonary disease arising out of coal mine employment.” *Id.* They further specify that “a disease ‘arising out of coal mine employment’ includes any chronic pulmonary disease or respiratory or pulmonary impairment significantly related to, or substantially aggravated by, dust exposure in coal mine employment.” *Id.* § 718.201(b). Lastly,

¹The parties agree that Shepherd did not have “clinical pneumoconiosis,” defined as “those diseases recognized by the medical community as pneumoconioses.” *See* 20 C.F.R. § 718.201(a)(1).

the regulations “recognize[]” pneumoconiosis “as a latent and progressive disease which may first become detectable only after the cessation of coal mine dust exposure.” *Id.* § 718.201(c).

2. The Fifteen-Year Presumption

In 2010, Congress reinstated what has become known as the “fifteen-year presumption” which provides that “if a miner was employed for fifteen years or more in one or more underground coal mines” or in “substantially similar . . . conditions” in surface mines, and “demonstrates the existence of a totally disabling respiratory or pulmonary impairment, then there shall be a rebuttable presumption that such miner is totally disabled due to pneumoconiosis, that his death was due to pneumoconiosis, or that at the time of his death he was totally disabled by pneumoconiosis.” 30 U.S.C. § 921(c)(4); 20 C.F.R. § 718.305(b)(1). We have described the operation of the presumption thus:

[A]fter a showing that the miner (1) was employed for at least fifteen years in underground coal mines and (2) is totally disabled due to a respiratory or pulmonary impairment, then the rest of the elements outlined in 20 C.F.R. § 725.202(d) are presumed and the burden shifts to the employer to rebut them. Proof sufficient to invoke the presumption proves the first element—that the individual is a coal miner—and the fifth element—that the individual is totally disabled. The other three elements—that the individual suffers from pneumoconiosis arising out of his coal mine employment and causing this disability—are presumed.

Ogle, 737 F.3d at 1069.

In order to rebut the presumption, the party opposing benefits (here, the employer) must present evidence that, if credited by the trier of fact, establishes “that (A) such miner does not, or did not, have pneumoconiosis, or that (B) his respiratory or pulmonary impairment did not arise out of, or in connection with, employment in a coal mine.” 30 U.S.C. § 921(c)(4). To carry its burden, the employer’s evidence must be sufficient to “‘rule[]out’ coal mine employment as a cause of the disability.” *Ogle*, 737 F.3d at 1071. Only “[i]f an employer is able to prove that pneumoconiosis played no part in causing a miner’s disability, [will] the employer . . . satisf[y] the requirements” for rebuttal. *Gibas v. Saginaw Mining Co.*, 748 F.2d 1112, 1120 (6th Cir. 1984); *accord Ogle*, 737 F.3d at 1071.

We have noted that, because “legal pneumoconiosis is defined as ‘any chronic lung disease or impairment and its sequelae arising out of coal mine employment,’” and, in turn, because “‘a disease arising out of coal mine employment’ includes any chronic pulmonary disease or respiratory or pulmonary impairment significantly related to, or substantially aggravated by, dust exposure in coal mine employment,” the two methods for rebutting the fifteen-year presumption under 30 U.S.C. § 921(c)(4)—(A) disproving pneumoconiosis and (B) disproving causation—“are closely related.” *Island Creek Ky. Mining v. Ramage*, 737 F.3d 1050, 1062 (6th Cir. 2013) (quoting 20 C.F.R. § 718.201(a)(2), (b)). We analyze them together. *See id.*

3. The Preamble

In the years before the Department’s 2000 update to the regulations implementing the BLBA, medical authorities and regulators, faced with a broad constellation of respiratory symptoms in miners, struggled to define the outer bounds of the disease known as pneumoconiosis: “Was illness from inhalation of coal mine dusts confined to one form of [clinical] pneumoconiosis—a scarring of lung tissue that can be detected by ‘radiological opacities’? Or could dust-induced respiratory disease include chronic bronchitis and emphysema, conditions causing lung impairment by obstructing the airways but often not detected on x-rays?” *See* Brian C. Murchison, *Due Process, Black Lung, and the Shaping of Administrative Justice*, 54 Admin. L. Rev. 1025, 1049 (2002) (hereinafter “Murchison, *Due Process*”). Despite the fact that federal regulations already recognized pneumoconiosis as including “chronic dust disease of the lung and its sequelae . . . arising out of coal mine employment . . . includ[ing] any chronic pulmonary disease . . . significantly related to, or substantially aggravated by, dust exposure in coal mine employment,” *Warth v. S. Oh. Coal Co.*, 60 F.3d 173, 175 (4th Cir. 1995) (quoting 20 C.F.R. § 718.201), the definitional debate came to a head in the 1990s as some experts contended that “*obstructive* lung disorders could not be caused by inhalation of coal mine dusts,” Murchison, *Due Process* at 1049 (emphasis added) (citing *Warth*, 60 F.3d at 174).

Importantly, “obstructive” lung conditions make it difficult for patients to exhale, *Wilgar Land Co. v. Dir., OWCP*, 85 F.4th 828, 839 (6th Cir. 2023), whereas “restrictive” lung

conditions make it difficult for patients to inhale, *Restrictive Lung Disease*, Johns Hopkins Med., <https://www.hopkinsmedicine.org/health/conditions-and-diseases/restrictive-lung-disease> (last visited Sept. 9, 2016) (hereinafter “*Restrictive Lung Disease*, Johns Hopkins Med.”). Clinical pneumoconiosis is “typified by lung scarring causing restrictive impairment,” which some experts argued should preclude benefits for miners with chronic obstructive diseases. Murchison, *Due Process* at 1050.

This definitional debate played out in the courts to mixed results. *Compare Warth*, 60 F.3d at 175 (holding that obstructive lung disorders can constitute pneumoconiosis when “significantly related to, or substantially aggravated by, dust exposure in coal mine employment” (quoting 20 C.F.R. § 718.201)), *with Stiltner v. Island Creek Coal Co.*, 86 F.3d 337, 340–41, 343 (4th Cir. 1996) (refusing to disturb decision denying benefits when miner’s obstructive lung disease was not accompanied by restrictive impairment).

Operators, claimants, and the government also debated whether pneumoconiosis (restrictive or obstructive) could develop or worsen after a miner’s coal-dust exposure ceased, a consequential question for claimant-miners who were not ill when they left the industry, but subsequently sickened. The Department took the position that pneumoconiosis could progress over time while the industry staked out the opposite stance. Murchison, *Due Process* at 1053–54. Again, tribunals came to varying conclusions. *Compare Old Ben Coal Co. v. Scott*, 144 F.3d 1045, 1048 (7th Cir. 1998) (declining to disturb benefits award crediting later-in-time x-rays and holding that the Department’s view “that pneumoconiosis is progressive” could “be upset only by medical evidence of the kind that would invalidate a regulation,” which the coal company had not adduced), *with Taylor v. E. Associated Coal Co.*, 99-0388 BLA at *2 n.8 (Ben. Rev. Bd. Sept. 27, 2000) (affirming denial of benefits because employer’s experts’ “belief that simple pneumoconiosis does not *generally* progress once coal dust exposure ceases is not tantamount to an opinion that pneumoconiosis is not a progressive disease” and thereby was not hostile to the BLBA (emphasis added)).

By 2000, “uncertain signals on crucial issues surrounding the nature of pneumoconiosis severely undermined the claims process [and] prompt[ed] in part the Department’s effort to clarify matters through rulemaking.” Murchison, *Due Process* at 1058. Indeed, we have

observed that the Department of Labor undertook its 2000 regulatory reform through notice and comment rulemaking in order, among other things, “to resolve the scientific question of whether coal mine dust exposure can cause obstructive respiratory impairments” in addition to restrictive ones. *Little David Coal Co. v. Dir., OWCP*, 532 F. App’x 633, 635 (6th Cir. 2012).

After extensive study and engagement with various viewpoints, the Department answered this question in the affirmative, recognizing that obstructive diseases could constitute “legal pneumoconiosis”—a broader category than “clinical pneumoconiosis”—consistent with “the prevailing view of the medical community and the substantial weight of the medical and scientific literature . . . that exposure to coal mine dust may cause chronic obstructive pulmonary disease.” 65 Fed. Reg. 79,923 (Dec. 20, 2000). The updated regulations also explicitly codified the fact that “[f]or the purposes of this definition, ‘pneumoconiosis’ is recognized as a latent and progressive disease which may first become detectable only after the cessation of coal mine dust exposure.” 20 C.F.R. § 718.201(c).

Accompanying these regulations was a preamble “present[ing] a detailed account of the medical and scientific literature supporting the DOL’s conclusion that exposure to coal mine dust can cause such ailments.” *Little David Coal*, 532 F. App’x at 635. The preamble reflects the reality that coal operators aggressively litigated (and the Department considered) the obstruction and latency issues in various forums before, during, and after the 2000 regulatory update. The preamble summarizes these debates, describing how coal operators lodged strenuous objections to the recognition of coal-related obstructive lung disease and how they presented, among other evidence, studies purporting to show that there was no evidence of a “clinically significant reduction in the FEV₁ [measure of lung obstruction] as a result of chronic obstructive lung disease due to coal mine dust inhalation.” 65 Fed. Reg. at 79,938. As detailed in the preamble, the Department carefully reviewed medical evidence in the record, including evidence submitted by commenters and found that “the prevailing view of the medical community [and] the substantial weight of the medical and scientific literature” supported its explicit recognition of coal-linked obstructive conditions as pneumoconiosis because “there is overwhelming scientific and medical evidence demonstrating that coal mine dust exposure can cause obstructive lung

disease” and demonstrating that coal-linked obstructive conditions can be clinically significant. *Id.* at 79,938–44.²

So too does the preamble evidence commenters’ objections to the “latency” principle, that coal-linked disease could lie undetectable for an extended period of time and progress over years. Commenters presented evidence purporting to demonstrate that “the medical literature provide[d] no evidence that coal workers’ pneumoconiosis or silicosis in coalminers is a latent disease [and that] [t]here [was] also no evidence to show that the development of pulmonary impairment is latent.” *Id.* at 79,969 (quoting Rulemaking Record, Exhibit, 89–37, Appendix C at 29). But, the Department “reviewed all of the medical literature referenced in the record, and d[id] not agree that it lack[ed] support for the proposition that pneumoconiosis is a latent, progressive disease,” particularly in light of the fact that “Congress provided an exceptionally broad definition of the term ‘pneumoconiosis.’” *Id.* at 79,969–70. In the preamble, the Department systematically examined the evidence commenters had presented against the latency principle and explained its reasons for arriving at the contrary conclusion, finding problems with scientific evidence submitted by latency-opposed commenters and relying on additional medical evidence. *Id.* at 79,969–72. Ultimately, the preamble reflected that, “[c]ontrary to the commenters’ argument . . . the record d[id] contain abundant evidence demonstrating that pneumoconiosis is a latent, progressive disease.” *Id.* at 79,971.

The preamble quickly became significant to the adjudication of black-lung claims because it represented the agency’s considered analysis and assessment of the then-existing science regarding the etiology and development of coal-linked lung diseases. It remains a common reference for ALJs presiding over benefits disputes. Perhaps for this reason, the 2000 regulatory updates and preamble were instantly the subject of attacks by the coal industry, including on the premise that the preamble would lead or even bind ALJs impermissibly to

²The agency explicitly relied on “the best science currently available to the Department while [also] leaving with the miner the burden of persuading the factfinder that he has a lung disease falling within th[e] definition,” 65 Fed. Reg. at 79,944; this “emphasized that [the Department’s] purpose was not to declare that all obstructive lung disease claimed in a black lung case was automatically classifiable as pneumoconiosis—only that the regulations would now reflect what courts had long recognized: that a coal miner may satisfy his burden of proving pneumoconiosis by establishing that he has obstructive lung disease induced [or substantially aggravated] by the inhalation of coal mine dust.” Murchison, *Due Process* at 1097.

discard medical evidence inconsistent with it; these challenges were unsuccessful. *See Nat'l Mining Ass'n v. Dep't of Lab.*, 292 F.3d 849, 863 (D.C. Cir. 2002) (rejecting as “meritless” the argument that “the preamble to the regulations impermissibly suggests that an adjudicator may ignore a medical report if the reporting doctor concludes that a miner’s obstructive lung disease was caused by smoking, rather than mining.”); *A&E Coal Co. v. Adams*, 694 F.3d 798, 801 (6th Cir. 2012) (“There is nothing in the preamble here to suggest that it is binding” so as to require notice and comment rulemaking).

Instead, we have held that the preamble “merely explains why the regulations were amended [and] does not expand their reach.” *Adams*, 694 F.3d at 802. Most importantly for the instant case, we have held that ALJs are “entitled” to “look at the preamble to assess [expert witnesses’] credibility.” *Id.* at 802 (citation omitted); *see also Wilgar Land*, 85 F.4th at 837–39. “The preamble is an instructive resource that explains the DOL’s evaluation of conflicting medical and scientific literature on the same complex issues with which . . . ALJ[s] . . . [are] confronted.” *Arch on the Green, Inc. v. Groves*, 761 F.3d 594, 601 (6th Cir. 2014) (quoting *Little David Coal*, 532 F. App’x at 636). Importantly, “[d]eterminations of whether a physician’s report is sufficiently documented and reasoned is a credibility matter left to the trier of fact[,]” the ALJ. *Tenn. Consol. Coal Co. v. Crisp*, 866 F.2d 179, 185 (6th Cir. 1989) (quoting *Moseley v. Peabody Coal Co.*, 769 F.2d 357, 360 (6th Cir. 1985)). And by “consult[ing] a part of the preamble that contains a discussion of medical literature on black lung disease,” an ALJ “in effect us[es] the preamble to test whether the theories of [experts] . . . [are] consistent with medical literature.” *Groves*, 761 F.3d at 601. We have held that it is “reasonable for [an] ALJ to give greater weight to the testimony of the medical expert whose opinion was supported by the prevailing view of the medical and scientific community as reflected in the regulatory preamble.” *Little David Coal*, 532 F. App’x at 636.

Though coal operators have long argued that ALJs improperly rely on the preamble in discrediting employer experts, we have repeatedly (if not universally) declined to review or displace ALJs’ decisions to credit or discredit expert witnesses based on inconsistency between the expert opinion and the scientific analysis adopted by the regulations and explained by the preamble. *See, e.g., id.*; *Ogle*, 737 F.3d at 1073–74; *Adams*, 694 F.3d at 801–02; *Cent. Oh. Coal*

Co. v. Dir., OWCP, 762 F.3d 483, 491–92 (6th Cir. 2014); *Kentucky Prince Mining Co. v. Dir., OWCP*, 800 F. App'x 410, 413 (6th Cir. 2020); *Robert Coal Co. v. Dir., OWCP*, 753 F. App'x 350, 358–59 (6th Cir. 2018); *Quarto Mining Co. v. Dir., OWCP*, 657 F. App'x 428, 436–37 (6th Cir. 2016); *Little David Coal*, 532 F. App'x at 635–36; *Peabody Coal Co. v. Belt*, 486 F. App'x 593, 594 (6th Cir. 2012).

B. Factual and Procedural Background

Under today's claims-administration system, OWCP processes claims through its district directors' offices, which make initial determinations concerning whether a coal miner is entitled to benefits under the BLBA and which employer is responsible for paying those benefits. 20 C.F.R. §§ 725.350–51, 725.418. A party disagreeing with the district director's determination may obtain a de novo hearing before an ALJ, whose decision may be challenged by dissatisfied or aggrieved parties before the BRB and, later, the Court of Appeals for the Circuit where the claimant's injury occurred. *Id.* §§ 725.421, 725.481–82.

Claimant Randell Shepherd filed the claim that is the subject of this appeal in January 2014. Dir. Ex. 5 (2014 Claim).³ On November 20, 2014, the district director issued a proposed decision and order denying benefits. Dir. Ex. 57 (Proposed Decision and Order at 1–3). Shepherd requested a hearing in front of an ALJ on December 5, 2014. Dir. Ex. 58 (Request for Hearing). On April 25, 2018, an ALJ issued a Decision and Order awarding benefits to Shepherd, Pet. Appendix (“App.”) at 1–36, but, for reasons not at issue here, the BRB vacated the award and remanded the case for reassignment on February 25, 2019, *id.* at 74–79.

On remand before a new ALJ, and as relevant here, Shepherd argued that he was entitled to benefits because evidence showed that he had mined for fifteen years and had a totally disabling respiratory or pulmonary impairment, invoking the BLBA's rebuttable presumption that his total disability was due to pneumoconiosis and that he was thereby entitled to benefits. *Id.* at 187–89. Shepherd relied on record evidence that he had worked in a coal mine for more

³Shepherd died on July 12, 2021, Dir. Ex. 23 (Death Cert.), making his widow, Judy Shepherd, automatically eligible for survivor's benefits under the ALJ's December 2, 2021 order granting benefits. App. at 270. On February 20, 2024, Mrs. Shepherd (through counsel) filed a motion to be substituted as the claimant in this court, D. 20, which we granted on April 5, 2024, D. 23.

than 18 years and was exposed to significant concentrations of coal dust. *Id.* at 188. He also cited pulmonary function studies and reasoned medical opinions, which, he argued, established his totally disabling respiratory impairment. *Id.* Shepherd argued that Incoal could not rebut the fifteen-year presumption because it could not show the absence of clinical or legal pneumoconiosis or show that no part of his disability was caused by pneumoconiosis. *Id.* at 188–89. Shepherd cited an initial expert report by Dr. Mettu that acknowledged Shepherd’s smoking history but nonetheless linked his condition to past coal-mine employment. *Id.* at 190. Such evidence, Shepherd argued, precluded a finding that no part of his disability was caused by coal-dust exposure, and prevented Incoal from carrying its burden to rebut the presumption. *Id.* at 190–91.

Incoal responded that, with or without the fifteen-year presumption, the evidence failed to support Shepherd’s entitlement to benefits. *Id.* at 212. Relying on expert reports, Incoal argued that Shepherd’s lung-function tests indicated an obstructive respiratory condition not attributable to coal dust, as did the timeline on which he sickened, and the type of emphysema from which he suffered. *Id.* at 215–16. “Irrespective of where the burden [of proof] [lay],” Incoal argued that what it characterized as “universal proof, explaining that no part of any disability was due to coal dust,” could not be ignored. *Id.* at 217. Acknowledging that case law allowed ALJs to “consult the preamble when deciding a case,” Incoal argued that “the preamble may [not] be relied on to resolve conflicts in the medical evidence on questions of causation where the fifteen-year presumption is invoked,” or “become a vehicle for an adjudicator to substitute his medical judgment for that of the experts.” *Id.* at 218. Incoal asserted that “[t]he preamble . . . may not carry [Shepherd’s] evidentiary burden,” despite the burden-shifting effect of the fifteen-year presumption. *Id.* at 219.

On December 2, 2021, the ALJ issued a decision and order awarding benefits, finding that none of the expert opinions on which Incoal relied to contest entitlement—those of Drs. Rosenberg, Tuteur, and Mettu⁴—were well-documented or well-reasoned, because in some

⁴In the petition for review before us, Incoal does not articulate why it believes the ALJ was incorrect to discredit Dr. Mettu’s later opinion and we therefore decline to displace the ALJ’s decision on that point.

places their opinions conflicted with the regulations and preamble, and in others they were internally inconsistent or unreasoned. *Id.* at 225, 253–56.

Incoal petitioned the BRB for review of the ALJ’s decision, *id.* at 276, accusing the ALJ of “wielding the [preamble] as a subterfuge to avoid having to assess what the experts (and the literature that informed their conclusions) did and did not say,” *id.* at 278. According to Incoal, the ALJ had impermissibly “discredit[ed] all three board-certified pulmonologists’ opinions that found, universally, that Shepherd had no legal pneumoconiosis and that coal dust played no part in his respiratory impairment.” *Id.* at 280–81. Lastly, on appeal to the BRB, Incoal argued that “the ALJ’s holding on this record proves the rebuttable presumption is irrebuttable, violating the Act, the APA, and due process and demonstrating the preamble’s status as an illegal rule.” *Id.* at 310 (capitalization omitted).

Shepherd replied that the ALJ’s decision was supported by substantial evidence in the record that Shepherd had legal pneumoconiosis and that his condition could be attributed to coal dust exposure. *Id.* at 340. Further, Shepherd argued, Incoal had failed to show he did not have legal pneumoconiosis or that no part of his disability was caused by pneumoconiosis. *Id.* at 340–41. Lastly, Shepherd asserted that, to the extent Incoal attacked the lawfulness of the preamble, that argument was unsupported. *Id.* at 341.

On June 29, 2023, the BRB affirmed the ALJ’s decision, holding that the ALJ permissibly weighed the evidence and discredited the expert opinions in light of the scientific findings endorsed as credible by the Department in the preamble. *Id.* at 360–64. Incoal and its insurer (together “Incoal”) petitioned this court for review, which Shepherd and the Department opposed. D. 1, 16, 25, 26. Petitioners argue that “reversal . . . is required” “[i]n light of the uncontroverted evidence rebutting any presumption of entitlement.” Pet. Br. at 16.⁵

⁵Incoal asserts that here “the proof agrees, universally, with [its] case” that Shepherd did not have pneumoconiosis. Pet. Br. at 16. But a review of the record reveals evidence that, if credited, could support the opposite conclusion: Shepherd had qualifying lung-function values on at least one test, App. at 236 (citing Dir. Ex. 24 (Rosenberg 2014 Rep. at 18)), and the Department’s expert Dr. Mettu concluded in his initial evaluation that Shepherd did have pneumoconiosis, Dir. Ex. 19 (Mettu Feb. 2014 Rep. at 31).

II. ANALYSIS

A. Standard of Review

We review de novo the BRB's legal conclusions. *Ramage*, 737 F.3d at 1056. "While we must affirm the Board's decision unless the Board has committed legal error or exceeded its scope of review, our review actually focuses on whether the ALJ's decision is supported by substantial evidence." *Id.* We deny review where the ALJ "applied the governing law correctly to reach a conclusion supported by substantial evidence." *Id.* "An ALJ's decision is supported by substantial evidence if 'such relevant evidence as a reasonable mind might accept as adequate' supports the conclusion." *Island Creek Coal Co. v. Maynard*, 87 F.4th 802, 809 (6th Cir. 2023) (quoting *Ogle*, 737 F.3d at 1068–69). "We do not reweigh the evidence or substitute our judgment for that of the ALJ." *Tenn. Consol. Coal Co. v. Kirk*, 264 F.3d 602, 606 (6th Cir. 2001). "[W]e may affirm an ALJ's decision even though 'we would have taken a different view of the evidence were we the trier of facts.'" *Ogle*, 737 F.3d at 1069 (quoting *Ramey v. Kentland Elkhorn Coal Corp.*, 755 F.2d 485, 486 (6th Cir. 1985)). "[A] reviewing court may not set aside an inference because it finds another more reasonable." *Moseley*, 769 F.2d at 360.

In particular, "[t]he law requires the [ALJ as] trier of fact to determine whether the medical evidence before him is sufficiently documented and reasoned, and to weigh the evidence accordingly." *Grayson Coal & Stone Co. v. Teague*, 688 F. App'x 331, 336 (6th Cir. 2017). The ALJ's "determination[] to credit or discredit . . . medical opinions based on whether they are sufficiently documented and reasoned is a credibility matter that we must leave to the ALJ." *Ogle*, 737 F.3d at 1073. "If the ALJ has adequately explained why he weighed the evidence as he did, then he has satisfied the substantial evidence standard." *Id.* at 1069. "A remand or reversal is only appropriate when the ALJ fails to consider all of the evidence under the proper legal standard or there is insufficient evidence to support the ALJ's finding." *Id.* (quoting *McCain v. Dir., OWCP*, 58 F. App'x 184, 201 (6th Cir. 2003)).

B. Incoal's Arguments

1. Latency

Incoal's first argument relates to a finding by its expert, Dr. Rosenberg, that Shepherd's bronchitis, having worsened since he left the mines, could not be attributed to pneumoconiosis. Dr. Rosenberg opined that, because "chronic bronchitis dissipates within months of the time that inhalation factors causing its presence cease to occur," "remote [coal] exposures are not aggravating factors for current bronchitic symptoms [and] specific to Mr. Shepherd, mine dust exposures ending in the 1980s are not causing aggravation of bronchitis in 2014." Dir. Ex. 24 (Rosenberg 2014 Rep. at 11).

The ALJ found that Dr. Rosenberg's opinion was "contrary to the premise underlying the regulations that . . . pneumoconiosis is a latent and progressive disease which may first become detectable only after the cessation of coal mine dust exposure." App. at 255. Incoal accuses the ALJ of using the preamble to "create a presumption that all or even most obstructive disease is caused by exposure to coal dust." Pet. Br. at 18 (quoting *Nat'l Mining Ass'n*, 292 F.3d at 862–63).

That argument is misplaced for two reasons: First, the premise that pneumoconiosis may be latent and progressive does not just underlie the regulations; it is *in* the regulations. 20 C.F.R. § 718.201(c) ("For purposes of this definition, 'pneumoconiosis' is recognized as a latent and progressive disease which may first become detectable only after the cessation of coal mine dust exposure."). Accordingly, the ALJ's "conclusion had nothing to do with the preamble" because "the Department placed the 'latency' principle in the regulation itself [and so] [t]he judge did have a duty to follow that regulation." *Wilgar Land*, 85 F.4th at 841.⁶ It was thus perfectly appropriate for the ALJ to "discredit a medical opinion that fails to account for this latency possibility." *Id.*; see also *Sunny Ridge Mining Co. v. Keathley*, 773 F.3d 734, 738 (6th Cir. 2014) (finding no error where the ALJ discredited doctor who "ruled out coal dust exposure as a cause" of the claimant's chronic bronchitis on the grounds that "the bronchitis associated with

⁶We note that Incoal's counsel also represented the coal operator in *Wilgar Land* and so is aware of this holding. *Wilgar Land*, 854 F.4th at 833.

coal dust exposure usually ceases with cessation of exposure” because that statement was “inconsistent with 20 C.F.R. § 718.201(c)” (quoting expert)).

Second, Incoal’s argument that the ALJ’s purported reliance on the preamble “create[d] a presumption that all or even most obstructive disease is caused by exposure to coal dust,” Pet. Br. at 18 (quoting *Nat’l Mining Ass’n*, 292 F.3d at 862–63), is wrong as a matter of settled law. In *National Mining*, which Incoal quotes in support of its own position, the D.C. Circuit held that the regulations did not create “an irrebuttable presumption that the miners’ pneumoconiosis is progressive,” and instead “simply prevent[ed] operators from claiming that pneumoconiosis is *never* latent and progressive.” 292 F.3d at 863–64 (emphasis in original);⁷ *see also Dixie Fuel Co. v. Dir., OWCP*, 820 F.3d 833, 844–45 (6th Cir. 2016) (holding that the ALJ did not “wrongly presume[] that pneumoconiosis is always latent and progressive” when the ALJ found the expert’s opinion—that “coal dust exposure ‘should not’ account for the changes in [miner’s] pulmonary functions, since [miner] left mining work [20 years earlier]”—“should be accorded little weight”). In fact, the preamble expressly disavows such a presumption: “Although one commenter asserts that the regulation creates an irrebuttable presumption that each miner’s condition is progressive, it actually does no such thing” because “[t]he revised regulation continues to afford coal mine operators an opportunity to introduce contrary evidence weighing against entitlement.” 65 Fed. Reg. at 79,972.

Additionally, Incoal’s assertion that the ALJ assumed pneumoconiosis is always latent and progressive is unconvincing in light of the fact that, once Shepherd properly invoked the fifteen-year presumption (which Incoal does not challenge here), Incoal bore the burden of proof. *See* 30 U.S.C. § 921(c)(4); 20 C.F.R. § 718.305(b)(1). The ALJ did not decide that chronic bronchitis in coal miners like Shepherd was *always* related to coal mining, but instead he held that Incoal had failed to show that Shepherd’s bronchitis was *not* caused or aggravated by his work in the mines. *See Maynard*, 87 F.4th at 815 (holding the ALJ did not err in finding expert “did not provide any convincing rationale to rebut the presumption” where expert opined that

⁷The D.C. Circuit held in *National Mining* that “[t]he medical literature makes it clear that pneumoconiosis may be latent and progressive, and appellants do not dispute this point.” 292 F.3d at 863. Incoal fails to dispute the underlying science here as well.

“any chronic bronchitis from occupational exposure occurs at the time of exposure, but then ‘almost always’ disappears within months after exposure ceases” (quoting ALJ); *Consol of Ky., Inc. v. Eskut*, 734 F. App’x 964, 969 (6th Cir. 2018) (determining the ALJ did not err in finding employer failed to rebut the fifteen-year presumption with expert’s “view [that] chronic bronchitis due to coal mine dust exposure would be expected to impair function during active exposure, and improve after such exposure ceased” (quoting ALJ)).

Like many ALJs before him, the ALJ here found Dr. Rosenberg’s opinion insufficiently persuasive to rebut the fifteen-year presumption given the Department’s well-supported position that a persistent pulmonary condition like chronic bronchitis is not inconsistent with legal pneumoconiosis. The coal industry has contested this finding again and again, including by ample participation in the deliberative process through which the current regulations were promulgated. *See supra* Section I(a)(3). It failed to prove its case then just as it failed to prove its case before the ALJ and before us.

Incoal tries to save its challenge by asserting that “Dr. Rosenberg ‘agree[d] that [pneumoconiosis] can be latent and progressive.’ Thus, he ‘did not dispute that the disease can develop later, . . . [and] ‘asserted only that this type of delayed onset is rare, and that nothing in [Shepherd’s] case suggested it was a rare one.’” Pet. Br. at 17–18 (quoting *Wilgar Land*, 85 F.4th at 843). This objection appears calculated to show that Dr. Rosenberg’s opinion was not in fact in conflict with the regulations; however, “[a]s a whole, Dr. Rosenberg’s testimony suggests that he objects to the Department of Labor’s view. . . . [W]hile he admits that the Department of Labor’s view is sometimes true, he mainly disagrees.” *Kentucky Prince*, 800 F. App’x at 414. “So the ALJ did not read Dr. Rosenberg’s⁸ statements disagreeing with the Department of Labor out of context. Rather, the ALJ read Dr. Rosenberg’s statement agreeing with the Department of Labor *in context*.” *Id.* (emphasis in original). And regardless of whether the position that pneumoconiosis is not *usually* latent and progressive does in fact conflict with the regulations, it would still be Incoal’s burden to persuade the ALJ that the post-mining development of

⁸In *Kentucky Prince* and elsewhere we have considered opinions by the same Dr. Rosenberg whose opinion is at issue here; he is a frequent expert witness for coal operators.

Shepherd's bronchitis disproved a connection to his coal mining history. *See Gibas*, 748 F.2d at 1120.

The ALJ was entitled to weigh Dr. Rosenberg's opinion against the preamble and— informed by the fact that Dr. Rosenberg's main conclusion on the latency issue conflicted with the regulations themselves—to find Dr. Rosenberg's opinion insufficiently persuasive to carry Incoal's burden. *See Groves*, 761 F.3d at 601; *Little David Coal*, 532 F. App'x at 636.

2. FEV₁/FVC

Incoal next argues that the ALJ impermissibly relied on the preamble to discredit Dr. Rosenberg on an issue about which the preamble was “wholly silent”—Dr. Rosenberg's contention that Shepherd's reduced FEV₁/FVC ratio showed his COPD was attributable to smoking and not coal dust exposure. Pet. Br. at 21 (quoting *Consol. Coal Co. v. Shipley*, No. 19-1738, 2022 WL 402432, at *9 (4th Cir. Feb. 9, 2022) (Quattlebaum, J., dissenting)).

“FEV₁ is ‘forced expiratory volume in one second.’⁹ FVC is ‘forced vital capacity.’ Both are pulmonary-function tests that measure the volume of air that can be blown out of the lungs after taking a full breath: FVC tests total volume, and FEV₁ tests how much air is emitted in one second.” *Cent. Oh. Coal Co.*, 762 F.3d at 491 n.3. “The lower the ‘FEV₁/FVC ratio’ (that is, the longer it takes a person to exhale the total amount of air that the person can inhale), the more likely the person has an *obstructive* condition that makes it difficult to exhale,” *Wilgar Land*, 85 F.4th at 839 (emphasis in original), whereas a person with a restrictive lung condition may have difficulty fully expanding their lungs when *inhaling* which would not cause a similar reduction in the ratio, *Restrictive Lung Disease*, Johns Hopkins Med.

Dr. Rosenberg opined that, given “Mr. Shepherd's marked reduction of the FEV₁ in relationship to FVC, [Rosenberg's] findings [were] inconsistent with the presence of legal [pneumoconiosis]. Rather, they [were] classic for smoking-related airflow obstruction.” Emp. Ex. 2 (Rosenberg 2020 Rep. at 9). He noted that “studies show that coal dust reduces FEV₁ and

⁹In legal and scientific materials, the numeral “1,” which denotes the number of seconds for which an FEV value was measured, is often (but sometimes inconsistently) depicted using subscript. We follow that convention here.

FVC in equal measure,” resulting in a stable ratio, while “cigarette smoking drives the FEV₁ down much farther than FVC,” causing a reduction in ratio. *Id.* at 5. But, we have held that “[a]ny broad-based argument that coal dust never lowers the FEV₁/FVC ratio is simply the scientific way of arguing that coal dust never causes obstructive diseases,” which is in direct conflict with the regulations themselves. *Wilgar Land*, 85 F.4th at 840. That is exactly the argument that coal companies have made since before the preamble was ever written, that the Department considered and rejected in its 2000 regulatory update, and that Incoal nonetheless attempts to make here, however indirectly.

Incoal argues that the ALJ erred in discrediting Dr. Rosenberg’s opinion on this point because, it asserts, the preamble and regulations have nothing to say about the “significance of a reduced FEV₁/FVC ratio ‘in distinguishing the effects of coal dust and tobacco,’” and instead “merely ‘discuss[] the general idea that chronic obstructive pulmonary diseases can be detected by decreases in either the FEV₁ or the FEV₁/FVC ratio.’” Pet. Br. at 21 (quoting *Shipley*, 2022 WL 402432, at *9 (Quattlebaum, J., dissenting)). The ALJ did remark that “it would not make sense for the regulations to allow a claimant to establish total disability due to pneumoconiosis by showing a reduced FEV₁ or FEV₁/FVC ratio were Dr. Rosenberg correct.” App. at 254. But the preamble’s discussion of the FEV₁/FVC ratio goes beyond mere detection and expresses the Department’s position that coal dust exposure has been shown to cause reduced lung function and obstructive pulmonary diseases, which manifest with a reduced FEV₁/FVC ratio. 65 Fed. Reg. at 79,943 (“In addition to the risk of simple” and more prototypical clinical pneumoconiosis and progressive massive fibrosis, “epidemiological studies have shown that coal miners have an increased risk of developing COPD. COPD may be detected from decrements in certain measures of lung function, especially FEV₁ and the ratio of FEV₁/FVC. [Such] decrements in lung function associated with exposure to coal mine dust are severe enough to be disabling in some miners, whether or not [clinical] pneumoconiosis is also present.” (quoting Criteria, 4.2.3.2, Rulemaking Record, Exhibit 2-1 at 57)). As we have held before, “[t]he ALJ appropriately declined to credit Dr. Rosenberg’s medical opinion because it was inconsistent with the DOL’s position that ‘coal mine dust exposure may cause COPD, with associated decrements in FEV₁/FVC.’” *Cent. Oh. Coal Co.*, 762 F.3d at 491 (quoting Joint Appendix at 67 (citing 65 Fed. Reg. at 79,943)).

Incoal defines the issue at too specific a level of generality when it argues that the preamble and regulations are silent as to the “significance of a reduced FEV₁/FVC ratio ‘in distinguishing the effects of coal dust and tobacco.’” Pet. Br. at 21 (quoting *Shipley*, 2022 WL 402432, at *9 (Quattlebaum, J., dissenting)). It is unsurprising that the preamble does not discuss the use of FEV₁/FVC in distinguishing between smoking- and coal-induced conditions because the Department’s position is that “[s]mokers who mine have *additive* risk for developing significant obstruction.” 65 Fed. Reg. at 79,940 (emphasis added). The preamble is thus not concerned with distinguishing the effects of coal dust and tobacco; nor does it have to be in order to support the ALJ’s decision. The preamble instead demonstrates the Department’s reasoned conclusion that a reduced FEV₁/FVC ratio is associated with COPD which in turn “fits neatly within the definition of legal pneumoconiosis.” *Keathley*, 773 F.3d at 739 (finding expert’s opinion, that coal-induced chronic bronchitis does not worsen after exposure ceases, to be inconsistent with the regulatory definition of legal pneumoconiosis, despite employer’s argument that “the regulations nowhere state that ‘*chronic bronchitis*’ is ‘a latent and progressive disease’” (emphasis added)).

The ALJ thus reasonably concluded that Dr. Rosenberg’s finding—that “the magnitude in the reduction of [Shepherd’s] FEV₁ in comparison to the reduction in [his] FVC provides a basis for distinguishing between the effects of cigarette smoking and coal dust exposure,” Emp. Ex. 2 (Rosenberg 2020 Rep. at 5), and was “entirely consistent with the effects of cigarette smoking, not coal dust,” *id.* at 7—was “contrary to [the] premise underlying the regulations that coal dust exposure may cause chronic obstructive pulmonary disease, with associated decrements in FEV₁ and the FEV₁/FVC ratio,” App. at 254. And in any event, Dr. Rosenberg failed to convince the ALJ that “coal mine dust could not have aggravated or contributed to [Shepherd’s] condition, even if it did not cause his entire FEV₁ loss.” *Id.*

Incoal argues that “where [Dr. Rosenberg] explained why the preamble does not dispute that ‘COPD resulting from coal dust exposure is not correlated with a reduced FEV₁/FVC ratio,’ the ALJ was required to ‘engage with the substance of that scientific dispute.’” Pet. Br. at 22 (quoting *Cent. Oh. Coal Co.*, 762 F.3d at 490). But in *Central Ohio Coal*, which Incoal cites to support this argument, we held that the court would need to engage with the substance of the

scientific dispute about the connection between COPD and coal-dust exposure *only if* a party directly challenged the substance of the Department’s position as articulated in the preamble. 762 F.3d at 491–92. We held that “Central Ohio ha[d] presented no such evidence, and it ask[ed] this court to make no such determination.” *Id.* at 491. Instead, “[t]he sole issue presented here [was] whether the ALJ was entitled to discredit Dr. Rosenberg’s medical opinion because it was inconsistent with the DOL position set forth in the preamble, and the answer to that question is unequivocally yes.” *Id.* at 491–92. As we describe in more detail below, this case is no different.

3. Reversibility

Incoal again contends that the ALJ cited the preamble for matters on which it was silent when he discredited Dr. Rosenberg’s opinion that coal-related lung damage “would not be expected to allow . . . [Shepherd’s improved lung function in] response to bronchodilators.” Emp. Ex. 2 (Rosenberg 2020 Rep. at 11). But in finding that Dr. Rosenberg’s opinion was not well-reasoned or documented, the ALJ did not rely on the preamble at all; instead, the ALJ clearly articulated that Shepherd’s bronchodilator response could not carry Incoal’s burden to rebut the fifteen-year presumption because “some reversibility of pulmonary function test values after a miner is given bronchodilators does not preclude the presence of a chronic lung disease due to coal dust exposure.” App. at 255. Ultimately it *was* Incoal’s burden to present evidence that a bronchodilator response would “preclude the presence of a chronic lung disease due to coal dust exposure.” *Id.*; *see Ogle*, 737 F.3d at 1069; *Gibas*, 748 F.2d at 1120.

Although the ALJ did not point to record evidence for his assertion that Dr. Rosenberg’s bronchodilator-related conclusions could not carry Incoal’s burden to rebut the fifteen-year presumption, there was little need for the ALJ to do so. There was no factual dispute about whether Shepherd did or did not respond to bronchodilators. Instead, the credibility question for the ALJ was whether the conclusion that Dr. Rosenberg drew from that response was sufficiently well-reasoned and well-documented to rule out coal-dust exposure as a cause of Shepherd’s condition.

The ALJ correctly noted that, just as Dr. Rosenberg did not explain why Shepherd's bronchodilator response "preclude[d] the presence of a chronic lung disease due to coal dust exposure," App. at 255, we and at least one of our sibling circuits have affirmed the legal rule that an ALJ may discredit as insufficiently well-reasoned or supported expert opinions that fail to explain "why [a miner's] responsiveness to treatment with bronchodilators necessarily eliminated a finding of legal pneumoconiosis," *Crockett Collieries, Inc. v. Barrett*, 478 F.3d 350, 356 (6th Cir. 2007); see App. at 255 n.214 (citing *Crockett Collieries*, 478 F.3d at 356 and *Sea "B" Mining Co. v. Dunford*, 188 F. App'x 191, 200 (4th Cir. 2006)). Incoal makes no attempt to argue that, as a factual matter, Dr. Rosenberg's opinion actually *did* rule out coal-dust exposure as a cause of Shepherd's condition. Instead, Incoal's only response to the ALJ is to argue that Dr. Rosenberg's conclusion was not at odds with the preamble, see Pet. Br. at 23, but as we have already noted, the ALJ did not purport to rely on the preamble for his reversibility conclusions. In arguing that the ALJ erred by not explaining "why the bronchodilators evidence couldn't rule out coal-dust exposure as the underlying cause" of Shepherd's condition, the concurrence erroneously attempts both to "reconstruct better reasoning on [Incoal's] behalf" and to shift Incoal's burden to the ALJ. See Concurring Op. at 32.

We cannot say that the ALJ's credibility decision regarding Dr. Rosenberg's bronchodilator opinion was unsupported by substantial evidence or that it applied the law incorrectly. "While the ALJ's reasoning . . . is brief, it does clearly outline on what his decision rests." *Ramage*, 737 F.3d at 1062. The ALJ applied the correct rule of law, namely that it was Incoal's burden to show that Shepherd's response to bronchodilators precluded the presence of legal pneumoconiosis.. See *Ogle*, 737 F.3d at 1069; *Gibas*, 748 F.2d at 1120; *Crockett Collieries*, 478 F.3d at 356. And the ALJ clearly explained that, because Dr. Rosenberg's reversibility opinion left open the possibility coal-induced lung disease could respond to bronchodilators, the ALJ found that the opinion was not sufficiently well-reasoned and credible to carry Incoal's burden. App. at 255. Any factual distinctions between the instant case and *Crockett Collieries* or *Sea "B" Mining* cannot displace the ALJ's credibility determination; such factual distinctions would neither relieve Incoal of its evidentiary burden nor provide new evidence that would rule out coal-dust exposure as a cause of Shepherd's bronchodilator-responsive lung disease. Incoal

thus asks us to “reweigh the evidence or substitute our judgment for that of the ALJ,” which we cannot do. *See Kirk*, 264 F.3d at 606.

4. Emphysema

Dr. Rosenberg opined that Shepherd’s diffuse (rather than focal) emphysema was not characteristic of coal dust exposure because “the particles in cigarette smoke are smaller and more numerous than coal particles and distribute deeper throughout the lungs” and thus “emphysema related to cigarette smoke is more diffuse than emphysema due to coal dust.” Emp. Ex. 2 (Rosenberg 2020 Rep. at 9). Importantly, Dr. Rosenberg also relied on data purporting to show that, when compared, miners and non-miners had similar rates of even *centrilobular* (focal) emphysema. App. at 254–55. But, the ALJ noted, “contrary to Dr. Rosenberg’s findings, in the data he quotes, a higher proportion of non-smoking miners had centrilobular emphysema than non-smoking non-miners.” *Id.* at 255 (citing Dir. Ex. 24 (Rosenberg 2014 Rep. at 11)).

Incoal argues that the ALJ misinterpreted that data as supportive of the idea that coal dust may contribute to diffuse, in addition to centrilobular (focal), emphysema. Pet. Br. at 24. But Incoal misunderstands the ALJ’s reason for pointing out the contrary data; the ALJ was not arguing that the data showed a correlation between coal mining and diffuse emphysema, but that Dr. Rosenberg’s opinion was *internally inconsistent and unreasoned* in its use of data and thereby worthy of less probative weight. *See Brandywine Explosives & Supply v. Dir., OWCP*, 790 F.3d 657, 666–67 (6th Cir. 2015) (declining to reverse grant of benefits when the ALJ discredited employer’s expert witness because his “opinions [were] internally inconsistent”); *Quarto Mining Co.*, 657 F. App’x at 436 (no error where the ALJ considered internal inconsistencies in a report by Dr. Rosenberg and found the report “incoherent”). The ALJ’s point had little to do with the quality of the data and more to do with mistrust in Dr. Rosenberg’s inconsistent use of that data. This was a valid reason for the ALJ to discredit Dr. Rosenberg’s opinion and does not constitute error. And even if the ALJ incorrectly interpreted and applied

data as Incoal argues, the ALJ's decision to discredit Dr. Rosenberg was, as discussed above, already legally sound and supported by substantial evidence.¹⁰

Incoal also asserts that it was error for the ALJ to leave unaddressed a specific study of South African miners presented by Dr. Tuteur's expert opinion,¹¹ Pet. Br. at 26, but "we do not require the ALJ to remark on every piece of evidence and every omission by a physician," *Ogle*, 737 F.3d at 1072. Incoal seems to argue that the ALJ should have commented on this study because it was "groundbreaking," recent, and particularly thorough, Pet. Br. at 26, but this argument turns on the weight of the evidence, which is a determination for the trier of fact and one we do not invade, *see Kirk*, 264 F.3d at 606.

Finally, Incoal asserts that "[i]f this groundbreaking study (authored by a claimant's advocate, no less) did not 'archaize' the preamble's reliance upon [contrary evidence], the ALJ was obliged to explain why." Pet. Br. at 26. Here Incoal refers indirectly to the idea that an expert might "testif[y] as to scientific innovations that archaized or invalidated the science underlying the Preamble." *See Westmoreland Coal Co. v. Cochran*, 718 F.3d 319, 324 (4th Cir. 2013). In *Westmoreland*, however, the court found that the experts in question had not provided such testimony. *Id.* We have held that a party wishing to make such an argument must directly "challenge the substance of the DOL's position as articulated in the regulation's preamble" and "submit[] 'the type and quality of medical evidence that would invalidate' the DOL's position in that scientific dispute." *Cent. Oh. Coal Co.*, 762 F.3d at 491 (quoting *Midland Coal Co. v. Dir.*, *OWCP*, 358 F.3d 486, 490 (7th Cir. 2004)).

Though Incoal's brief implicitly criticizes the preamble's science, it has not directly presented to us (or the adjudicators below) the question of whether that science remains valid.

¹⁰Again, Incoal wishes to make the argument that the ALJ's decision on this point relied on the preamble and regulations for propositions on which they were silent, Pet. Br. at 25 ("the ALJ rejected Dr. Rosenberg's documented analysis in knee-jerk fashion, not because another expert disputed it, but because he thought the preamble did. Of course, he was wrong" (internal citation omitted)), but this argument falls flat given that the ALJ did not purport to rely on either the preamble or particular regulations for his emphysema analysis, *see App.* at 255.

¹¹The ALJ engaged in an in-depth analysis of Dr. Tuteur's expert opinion, *see, e.g.*, App. at 244–46, 255–57, but Incoal attacks the ALJ's decision only on the premise that it omits discussion of this particular data and on one other point, discussed further below.

Nor has Incoal developed a record on which we could consider such a question—whether, notwithstanding the propriety of an ALJ’s reliance on the preamble, new developments in science rendered the Department’s scientific conclusions clearly wrong. Ultimately, Incoal has “presented no such evidence” of “the type and quality of medical evidence that would invalidate’ the DOL’s position in that scientific dispute” and, as explained below, “it asks this court to make no such determination.” *Cent. Oh. Coal Co.*, 762 F.3d at 491 (quoting *Midland Coal Co.*, 358 F.3d at 490).

Instead, Incoal asks us to pass judgment on what it describes as “the ALJ’s preference for the preamble over [Incoal’s] universal proof” and “the ALJ’s refusal to allow a meaningful factual inquiry into the substance of this case’s scientific dispute [which] den[ied] Incoal the right to a fair adversarial testing of the record proof.” Pet. Br. at 2.¹² Both of these questions are squarely grounded in the ALJ’s decisions in this particular case, and do not present a frontal assault on the preamble. Nor did Incoal raise such a challenge in front of the ALJ. Incoal thus argues that the ALJ was “obligated to explain” the answer to a question he was never asked.

The inquiry required to determine whether the preamble’s science has been “archaized” is distinct; it would require the ALJ directly to compare the Department’s scientific conclusions (as reduced to writing in the preamble after years of study) with the data and conclusions on which Incoal’s experts relied. And it would require the ALJ to test the relative merit of each. Given Incoal’s admonitions about the “hazard[.]” that exists when “laypersons . . . ‘think they understand the material but *in reality* do not,’” it would be surprising for Incoal to request such an exercise from judges and courts. Pet. Br. at 17 (quoting Edward K. Cheng, *The Consensus Rule: A New Approach to Scientific Evidence*, 74 Vand. L. Rev. 407, 429 (2022)).¹³

¹²To say that Incoal had no opportunity to test the record proof strains credulity when, in Incoal’s telling, it presented a “one-sided mountain of evidence,” but the ALJ “discarded all [of it]” in favor of the preamble. Pet. Br. at 8, 30. This assertion appears to reference Incoal’s unsuccessful attempt before the ALJ to obtain discovery related to the drafting of the preamble. *See* App. at 88–103, 140–41. Incoal does not argue before us that the BRB erred when it found that the ALJ’s decision to deny discovery did not deprive Incoal of due process, *see id.* at 357–58, and we therefore do not address any discovery-related assertions.

¹³Contrary to the concurrence’s suggestion, we do not purport to make any distinction between an ALJ or court’s ability to consider a frontal attack on the science underlying the preamble and their ability to consider whether the preamble has been archaized. *See* Concurring Op. at 30. We simply summarize existing precedent

5. The Fifteen-Year Presumption

Incoal's next argument is that the fifteen-year presumption, though rebuttable on paper, is irrebuttable in practice. Pet. Br. at 28. This, Incoal argues, makes the fifteen-year presumption an unconstitutional due-process violation and inconsistent with the APA. *Id.* at 28–29, 32 (citing *Vlandis v. Kline*, 412 U.S. 441, 451 (1973)).

The crux of Incoal's argument here is that if Incoal's "evidence was insufficient to rebut the fifteen-year presumption, it is hard to imagine what would suffice," and that it is the preamble (written in 2000) which converts the presumption (reenacted in 2010) from rebuttable to irrebuttable. Pet. Br. at 30–31. In particular, Incoal argues, as its attorney previously did in *Wilgar Land*, that, when combined with the preamble, "[t]raining materials' for administrative law judges that supposedly direct them to discredit various expert opinions," *Wilgar Land*, 85 F.4th at 841,¹⁴ provide "the only explanation" for how the fifteen-year presumption has become irrebuttable, Pet. Br. at 31. But Incoal failed to make this argument before the ALJ and instead raised it for the first time before the BRB. App. at 318–20, 350. And Incoal has "identifie[d] nothing but speculation that the [ALJ] even knew about [the training materials]." *Wilgar Land*, 85 F.4th at 841. We decline to consider such materials, and Incoal has offered little else to support its argument, save for assertions about the strength of the evidence in its own case. *See* Pet. Br. at 30.

Even so, the Supreme Court has considered the BLBA's presumptions and has found they pass constitutional muster. *Usery v. Turner Elkhorn Mining Co.*, 428 U.S. 1, 28–29 (1976).¹⁵ In

about what a party would have to do to launch a scientific attack on the preamble—whether by arguing that the preamble has been archaized or by arguing that the preamble was wrong from the beginning, it makes no difference which—and we determine that, assuming the court could consider such an attack, Incoal has not mounted one before us. Lastly, we point out that, when convenient, Incoal criticizes the ALJ's "insistence that he underst[ood]" the scientific evidence better than the experts, *see* Pet. Br. at 23, but asks us to undertake a similar scientific inquiry when doing so would be favorable to Incoal.

¹⁴In *Wilgar Land* we refused to consider the same training materials on which Incoal bases its arguments here.

¹⁵*Turner Elkhorn* considered the fifteen-year presumption as implemented under the 1972 amendments to the BLBA. Congress eliminated the fifteen-year presumption in the Black Lung Benefits Revenue Act of 1981, Pub. L. No. 97-119, § 202(b)(1), 95 Stat. 1635, 1643, but reinstated it in 2010 through the "Byrd Amendments" to the Patient Protection and Affordable Care Act, Pub. L. No. 111-148, § 1556, 124 Stat. 119, 260. Neither

Turner Elkhorn, the Court reinforced the rule that “presumptions arising in civil statutes . . . involving matters of economic regulation” do “not constitute a denial of due process of law” if there is “some rational connection between the fact proved and the ultimate fact presumed, and . . . the inference of one fact from proof of another shall not be so unreasonable as to be a purely arbitrary mandate.” *Id.* at 28 (quoting *Mobile, J. & K. C. R. Co. v. Turnipseed*, 219 U.S. 35, 43 (1910)).¹⁶ The Court was careful to note that, for purposes of this analysis, “[t]he process of making the determination of rationality is, by its nature, highly empirical, and in matters not within specialized judicial competence or completely commonplace, significant weight should be accorded the capacity of Congress to amass the stuff of actual experience and cull conclusions from it.” *Id.* (quoting *United States v. Gainey*, 380 U.S. 63, 67 (1965)). Turning to the merits, the Court noted that “it [was] agreed here that pneumoconiosis is caused by breathing coal dust, and that the likelihood of a miner’s developing the disease rests upon both the concentration of dust to which he was exposed and the duration of his exposure,” and went on to hold that, “[a]gainst this scientific background, it was not beyond Congress’ authority to refer to exposure factors in establishing a presumption that throws the burden of going forward on the operators.” *Id.* at 28–29.¹⁷

amendment changed the precise language of the presumption but instead made the presumption first ineffective and later effective again for claims filed in certain timeframes.

¹⁶We have reaffirmed the validity of this principle in recent years. *See, e.g., Am. Exp. Travel Related Servs. Co. v. Kentucky*, 641 F.3d 685, 689 (6th Cir. 2011) (“[L]egislation that does not proscribe fundamental liberties . . . violates the Due Process Clause’ where it imposes burdens without any ‘rational basis’ for doing so” but this test “is highly deferential [and] courts hold statutes unconstitutional under this standard of review only in rare or exceptional circumstances”) (quoting *Sheffield v. City of Fort Thomas*, 620 F.3d 596, 613 (6th Cir. 2010), *Doe v. Mich. Dep’t State Police*, 490 F.3d 491, 501 (6th Cir. 2007)) (alteration in *Am. Exp. Travel Related Servs. Co.*).

¹⁷Tellingly, the Court also found that the BLBA’s *irrebuttable* presumption, that miners with certain kinds of serious and complex pneumoconiosis were totally disabled and thereby entitled to benefits, was constitutional: “As an operational matter, the effect of [the] ‘irrebuttable presumption’ of total disability is simply to establish entitlement in the case of a miner” with a relevant condition. *Turner Elkhorn*, 428 U.S. at 22. “Were the Act phrased simply and directly to provide that operators were bound to provide benefits for all miners clinically demonstrating their affliction with complicated pneumoconiosis arising out of employment in the mines, [the Court thought] it clear that there could be no due process objection to it . . . [because the Court could not] say that it would be irrational for Congress to conclude that impairment of health alone warrants compensation.” *Id.* at 23. The Court commented that it would be “err[or] [to] equat[e] this case with those in the mold of . . . *Vlandis*,” *id.* at 22, which is exactly what Incoal’s brief attempts to do, *see* Pet. Br. at 28–30.

Incoal argues that “ALJs assume that all individuals who worked fifteen years in a mine can trace their breathing problems to their employment,” Pet. Br. at 28, and in a sense Incoal is correct, but only because Congress decided it would be so. Incoal has not shown the presumption is incapable of being rebutted, nor has it presented evidence or arguments to persuade us that there is *no* rational connection between a miner’s length of employment and their chances of developing a coal-related lung condition. We doubt that science allows for such proof. And in any case, the Supreme Court has already settled the legal issue of whether Congress’s conclusion—that the length of a miner’s career is positively correlated to the miner’s risk of developing pneumoconiosis—was sufficiently supported by “the stuff of actual experience” to make the fifteen-year presumption constitutional. *Turner Elkhorn*, 428 U.S. at 28, 30–31 (quoting *Gainey*, 380 U.S. at 67) (noting that “in light of the Surgeon General’s [Senate testimony] . . . to the effect that the 15-year point marks the beginning of [the] linear increase in the prevalence of the disease with years spent underground, we think it clear that the durational basis of this presumption is equally unassailable”). Neither Incoal nor the concurrence make any scientific argument that a miner’s risk of developing pneumoconiosis is totally unrelated to the length of that miner’s career. Given that no one has attacked the *scientific* basis for the Supreme Court’s conclusion in *Turner Elkhorn*, we see no issue in concluding that the Supreme Court has settled the *legal* issue at hand.

6. Scientific Certainty

Incoal finally asserts that the ALJ erred by “insisting that the experts express their views with complete certainty,” Pet. Br. at 33, when the ALJ held that Dr. Tuteur’s finding—that “it [was] possible but highly unlikely, that coal mine dust influenced the COPD found in Mr. Shepherd,” Emp. Ex. 6 (Tuteur Rep. at 9)—“failed to adequately explain why coal mine dust *could not have* contributed to [Shepherd’s] condition,” App. at 256 (emphasis added).

First, this was not the ALJ’s sole reason for discrediting Dr. Tuteur’s opinion. The ALJ also held that Dr. Tuteur’s finding—that “there was not a significantly increased risk of COPD among miners”—was contrary to the premises underlying the regulations. *Id.* As explained above in Section II(B)(2), the ALJ was within his discretion to find that the Department’s conclusions (as expressed in the preamble) that “coal mine dust can cause obstruction, that

COPD includes three disease processes characterized by airway dysfunction: chronic bronchitis, emphysema, and asthma, and COPD may be caused by coal dust exposure” were more persuasive than Dr. Tuteur’s opinion. *Id.* (citing 65 Fed. Reg. at 79,937, 79,939).

Second, Dr. Tuteur also found that “the clinical characteristics of COPD in an individual [could not] be used to robustly differentiate the cause of COPD in” Shepherd, but that, because never-mining smokers are more likely to develop COPD than non-smoking miners, Claimant’s COPD was “due to the chronic inhalation of tobacco smoke, and not coal mine dust.” Emp. Ex. 6 (Tuteur Rep. at 7). In the ALJ’s view, Dr. Tuteur “failed to adequately explain why coal mine dust could not have contributed to Claimant’s *specific* condition.” App. at 2556 (emphasis added). We and “several of our sister circuits have previously warned mine operators, and Dr. Tuteur specifically,¹⁸ that an appellate court will not disturb an ALJ’s reasonable rejection of Dr. Tuteur’s statistical methods for failing to apply them to the individual claimant.” *Island Creek Coal Co. v. Young*, 947 F.3d 399, 408–09 (6th Cir. 2020) (citing *Energy W. Mining Co. v. Est. of Blackburn*, 857 F.3d 817, 829–30 (10th Cir. 2017), *Consol. Coal Co. v. Dir., OWCP*, 521 F.3d 723, 726 (7th Cir. 2008)).

Against this backdrop, and given the fact that Incoal had the burden of proof to rule out coal dust as a cause of Shepherd’s condition, *see Ogle*, 737 F.3d at 1069; *Gibas*, 748 F.2d at 1120, that the Department has made clear its position that the effects of smoking and coal dust are “additive,” 65 Fed. Reg. at 79,940, and that Dr. Tuteur explicitly found it was possible that coal dust contributed to Shepherd’s condition, Emp. Ex. 6 (Tuteur Rep. at 9), we hold that the ALJ’s decision to discredit Dr. Tuteur’s opinion was legally sound and supported by substantial evidence.

III. CONCLUSION

The ALJ’s decision is supported by substantial evidence and properly applies the law. For all the reasons stated, we **DENY** the petition for review.

¹⁸*Young*’s discussion of generalized statistical analyses concerned an opinion by the same Dr. Tuteur, also a frequent expert witness on behalf of coal operators.

CONCURRENCE

THAPAR, Circuit Judge, concurring in the judgment. I write separately to make two points—one broad, one narrow. First, I take issue with the majority’s scientific predictions. Second, I part ways with the majority regarding the adequacy of the ALJ’s analysis of the bronchodilators evidence. But neither disagreement changes the fact that I agree with the majority on the critical question: Substantial evidence supports the ALJ’s conclusion that Incoal hasn’t rebutted the presumption that Shepherd’s ailments result from coal mining. So, I respectfully concur in the court’s judgment.

I.

This case sits at the intersection of law and science. The two are very different enterprises. The law is comprised of settled rules. Our laws, from the Constitution on down, have fixed meanings. And our precedents interpreting those laws stay intact unless there’s good reason to upset them. By contrast, settled rules are anathema to science. Answers are always changing: We used to think the sun revolves around the earth; it turns out the opposite is true. Just this month, scientists started poking holes in Albert Einstein’s theory of general relativity. See Ian Randall, *Einstein’s Theory of General Relativity Faces Challenge*, Newsweek (Nov. 12, 2024, 2:13 PM), <https://www.newsweek.com/einstein-general-relativity-gravity-space-time-dark-energy-1984667>. And now thoughtful doctors and scientists are raising questions about the food pyramid with which we all grew up. See Mark Hyman, *How Our Government Made Us Fat and Sick!*, Mark Hyman MD, <https://drhyman.com/blogs/content/how-our-government-made-us-fat-and-sick> (Feb. 26, 2016); Jaimy Lee & Robert Lustig, *Why the USDA Food Pyramid Diet Recommendations Changed*, Levels, <https://www.levels.com/blog/how-and-why-the-food-pyramid-diet-recommendations-changed> (Aug. 8, 2023). In science, no rule or conclusion is “settled”—the only constant is the method by which scientists ask questions and formulate tentative answers to them.

Because science is unsettled by definition, I take issue with the majority's "doubt[ing]" that a party could successfully attack the validity of the statutory presumption. Maj. Op. at 27. No science is settled. It may seem doubtful today that such proof will emerge, but science teaches us to never say "never."

I also take issue with the majority's skepticism about an ALJ's ability to decipher whether the preamble's science has been "archaized." *Id.* at 24. Echoing our precedent, the majority rightly notes that litigants are free to attack the scientific conclusions underlying the preamble. *See, e.g., id.* (citing *Cent. Ohio Coal Co. v. Dir., Off. of Workers' Comp. Programs*, 762 F.3d 483, 491 (6th Cir. 2014)). If a litigant were to launch such an attack, we "would need to engage the substance of that scientific dispute." *Cent. Ohio Coal Co.*, 762 F.3d at 491. To do so, we would "test the relative merit" of different scientific arguments. Maj. Op. at 24. The inquiry into whether the preamble's science is outdated, which the majority critiques as outside the judicial bailiwick, strikes me as no different in principle. So, I don't see the basis of the majority's distinction.

But my concerns don't upset the majority's judgment that substantial evidence supported the ALJ's conclusion.

II.

I also have concerns about the majority's assessment of the ALJ's analysis of the bronchodilators evidence. But again, they don't warrant upsetting the majority's judgment.

Substantial evidence must support an ALJ's credibility determinations. *Big Branch Res., Inc. v. Ogle*, 737 F.3d 1063, 1072 (6th Cir. 2013). Substantial evidence review is permissive, but it's not toothless. The ALJ's findings of fact must rest on more than "a mere scintilla" of evidence. *Universal Camera Corp. v. NLRB*, 340 U.S. 474, 477 (1951) (citation omitted). Here, the ALJ didn't offer even a scintilla of evidence in support of its decision to discredit Dr. Rosenberg's opinion about the meaning of Shepherd's positive response to bronchodilators treatment. Simply put, Incoal provided some expert testimony, and the ALJ discredited it without citing any evidence to the contrary. That's a problem.

Incoal bore the burden to rebut the presumption that Shepherd's ailments stemmed from his years of coal mining. 30 U.S.C. § 921(c)(4). Incoal had to establish either that Shepherd didn't have pneumoconiosis or that his respiratory issues weren't connected to his coal-mine employment. *Id.* To make that rebuttal, Incoal offered testimony from Dr. Rosenberg. Rosenberg pointed out that Shepherd had responded positively to bronchodilators treatment. He then opined that if coal mining—as opposed to smoking—were responsible for Shepherd's lung damage, then the bronchodilators treatment wouldn't have helped him. So, Rosenberg reasoned, Shepherd's exposure to coal-mine dust didn't cause his ailment.

The ALJ discredited Rosenberg's opinion because “some reversibility of pulmonary function test values after a miner is given bronchodilators does not preclude the presence of a chronic lung disease due to coal dust exposure.” App. at 255. The ALJ didn't cite any record evidence in support of this proposition, nor did it cite the regulations' preamble. That's an issue. We shouldn't credit an ALJ's conclusion that isn't supported by even a scintilla of evidence.

To be sure, in discrediting this piece of Rosenberg's testimony, the ALJ cited a Fourth Circuit precedent and a Sixth Circuit precedent. *See id.* at 255 n.214 (citing *Sea “B” Mining Co. v. Dunford*, 188 F. App'x 191, 200 (4th Cir. 2006) (per curiam); *Crockett Collieries, Inc. v. Barrett*, 478 F.3d 350, 356 (6th Cir. 2007)).

But in *Sea “B” Mining Co.*, regulations at the time provided that if a miner obtained a particular pulmonary function test score (a FEV1 score), he was presumably entitled to black lung benefits. 188 F. App'x at 196. Although the miner's post-bronchodilator treatment test results in *Sea “B” Mining Co.* indicated some reversibility of his impairment, it was critical that the miner “still received” the required FEV1 scores to qualify for the presumption “both before and after the administration of the bronchodilators.” *Id.* at 200. So, substantial evidence supported the ALJ's conclusion that the mining company hadn't rebutted the presumption. *Id.*

And *Crockett* simply stated that the ALJ there found that an employer's expert had “not adequately explained why [the miner's] responsiveness to treatment with bronchodilators necessarily eliminated a finding of legal pneumoconiosis.” 478 F.3d at 356. *Crockett* says nothing about the adequacy of Rosenberg's explanations for Shepherd's responses to treatment

in this proceeding. Nor did *Crockett* upset the standard rule that the ALJ's credibility determination must rest on substantial evidence. Here, the ALJ cited no evidence to discredit Rosenberg's argument that Shepherd's illness didn't come from coal-mine dust in light of his positive response to bronchodilators treatment. And we can't reconstruct better reasoning on the ALJ's behalf. *See SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943).

The majority says that the lack of record evidence in support of the ALJ's conclusion shouldn't concern us: Ultimately, this was a credibility question for the ALJ to decide. But the ALJ still needs to "adequately explain[]" its credibility determination. *Ogle*, 737 F.3d at 1069. Here, the ALJ didn't seem to explain why the bronchodilators evidence couldn't rule out coal-dust exposure as the underlying cause.

Despite the ALJ's bronchodilators hiccup, the majority is correct to deny Incoal's petition for review. Where "remand would be an idle and useless formality," courts aren't required to "convert judicial review of agency action into a ping-pong game." *NLRB v. Wyman-Gordon Co.*, 394 U.S. 759, 766 n.6 (1969) (plurality opinion). Here, as surveyed by the majority, other pieces of record evidence provide substantial support for the ALJ's bottom-line conclusion: Incoal hasn't rebutted the presumption that Shepherd's ailments result from coal mining. The ALJ was free to discredit Incoal's experts when their testimony ran afoul of the premises underlying the regulations and their preamble. And as the majority notes, Incoal hasn't frontally attacked the preamble's science. In sum, a remand here is unnecessary. *See Japarkulova v. Holder*, 615 F.3d 696, 701 (6th Cir. 2010). So, I respectfully concur in the court's judgment.