

Efforts to Enhance Participation in the National Institute for Occupational Safety and Health B Reader Program



To the Editor:

For over 50 years, the National Institute for Occupational Safety and Health (NIOSH) has administered the NIOSH B Reader Program.¹ NIOSH B Reader certification is granted after successful completion of an examination testing competency in classifying posteroanterior chest radiographs for appearances of pneumoconiosis, using the International Labour Office's (ILO) International Classification of Radiographs of Pneumoconioses.² This examination is currently open only to licensed physicians, including but not limited to radiologists and pulmonologists. The ILO classification system established a standard vocabulary for describing radiographic shadows on chest films for epidemiologic studies and the ability to compare such studies across research groups and over time. The system has been adopted for medicolegal purposes and determination of eligibility for benefits in some settings.

Although more advanced imaging technologies such as chest CT scans have largely displaced posteroanterior chest radiography for diagnostic purposes in the clinical setting, state and federal regulations rely on ILO classification, often called "B reading" of posteroanterior chest radiographic images for worker surveillance and disability compensation purposes.^{3,4} As such, demand for B readers remains relatively high; however, the number of US-based certified B readers declined from the 1990s to approximately 2019 and has been stable since then (Fig 1). The cause of this decline is likely multifactorial and discussed by Halldin et al,¹ and includes shifts in technology, training, and perceptions of demand. At its peak in 1993, there were 772 B readers, which dropped to 189 B readers in 2025. As of 2024, 212 B readers came from the following specialties: 151 in radiology, 26 in pulmonology, 16 in internal medicine, 5 in occupational medicine, and 14 other types of physicians. Although 71.2% of currently certified B readers are radiologists, this represents only 0.2% (151/66,000) of all board-certified radiologists in the United States.⁵

In 2016, the Occupational Safety and Health Administration and in 2024, the Mine Safety and Health Administration published final rules related to exposure to respirable crystalline silica, which include provisions

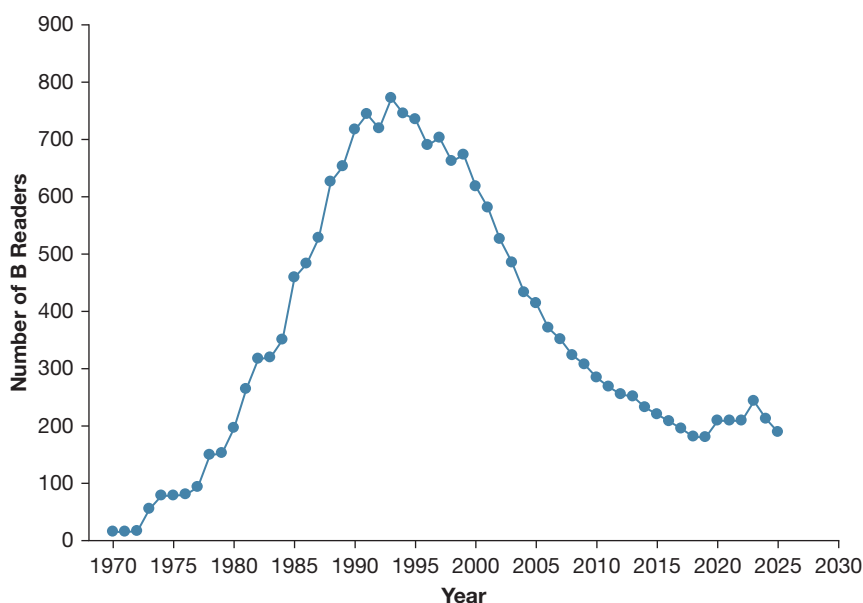


Figure 1 – Number of certified B readers on registry on December 31 each year.

related to worker monitoring involving chest radiograph interpretations by B readers.^{6,7} During the public comment period for these rules, some commentors raised concerns as to whether there were enough B readers to take on the potential increase in the number of radiographs that would require classification. One suggestion to meet the increasing demand for B

readers was to allow nurse practitioners and physician assistants to take the B reader examination and subsequently become certified B readers if they successfully passed. The American Association of Nurse Practitioners had previously posted public comments to NIOSH suggesting that nurse practitioners be allowed to become B readers.⁸

Methods

NIOSH posted a Request for Information to the Federal Register soliciting comments from the public specifically on this topic.⁹ On March 17, the comment period closed, and we performed a sentiment analysis of the comments received. Data were collected at [Regulations.gov](https://www.regulations.gov) and extracted through the bulk data download tool. We performed text preprocessing

(eg, removing punctuation and symbols, lowercasing, sorting) and identified verbatim comments (form letters). Comments were classified as positive, negative, or neutral by 2 independent raters, and agreement was achieved on positive and negative classifications on 1,268 (99.8%). A third rater and a consensus conference was made on 2 classifications that were classified as neutral or off topic and therefore unclassifiable.

Results

NIOSH received 1,270 unique comments, 1,005 (79%) disapproving of expansion of the program to include nurse practitioners and physician assistants.

Organizations who provided comment included the American College of Radiology (ACR), American Society of Radiologic Technologists, American Medical Association, Radiological Society of North America, American Osteopathic Association, and American Osteopathic College of Radiologists (joint statement) (Table 1).

TABLE 1] Origin of Responses to the Request for Information: Expansion of NIOSH B Reader Certification Eligibility

Respondent	No. of Responses	Percentage (%)
Professional organization ^a	9	0.7
Individual	1,261	99.3
Radiologist/physician	376	29.8
Physician assistant/nurse practitioner	186	14.8
Other	699	55.4

^aTen professional organizations that responded via 9 separate responses are the American Academy of Physician Associates (AAPA), American College of Occupational and Environmental Medicine (ACOEM), American Medical Association (AMA), Radiological Society of North America (RSNA), American Society of Radiologic Technologists (ASRT), American College of Radiology (ACR), North American Insulation Manufacturers Association (NAIMA), American Association of Nurse Practitioners (AANP), American Osteopathic College of Radiology (AOCR), and the American Osteopathic Association (AOA).

Discussion

In view of input received, NIOSH does not intend to certify nonphysicians as B readers. However, we appreciate the importance of maintaining and increasing the number of active B readers. To that end, NIOSH has collaborated with ACR to develop a new B reader examination with modern, digitally acquired radiographs and has created a training syllabus that is available online. The B reader examination is now administered at 3 locations: the NIOSH facility in Morgantown, West Virginia; ACR's headquarters in Reston, Virginia; and the University of Illinois at Chicago. The ACR and University of Illinois at Chicago both offer B reader training courses at their respective campuses. NIOSH also increased the length of certification from 4 years to 5 years in 2019. Also, as the result of a partnership with NIOSH, in 2022 ILO published a revised edition of the guidelines for the use of ILO International Classification of Radiographs of Pneumoconiosis and made the digitally acquired standard images needed to use the system available for download free of charge. NIOSH hopes these changes will increase interest in the B reader program over time by improving study materials, making the examination more accessible at multiple locations, increasing the number of B reader courses available, and decreasing costs for acquiring the standard images needed to perform ILO classification. Since NIOSH began administering the new examination in February 2020, 226 US physicians have taken the examination, with 69% passing on their first attempt. We hope eligible US physicians will consider becoming B readers.

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