

STATEMENT OF

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Before the

Committee on Resources

Subcommittee on

Energy and Mineral Resources

U.S. House of Representatives

Hearing on “The Aging of the Energy and Minerals Workforce:  
A Crisis in the Making?”

July 8, 2004

Thank you Madam Chair and Members of the Subcommittee. I am Bruce Watzman, Vice President for Safety, Health and Human Resources at the National Mining Association (NMA). On behalf of our members, and their dedicated employees, let me thank you for conducting this hearing and for this opportunity to testify.

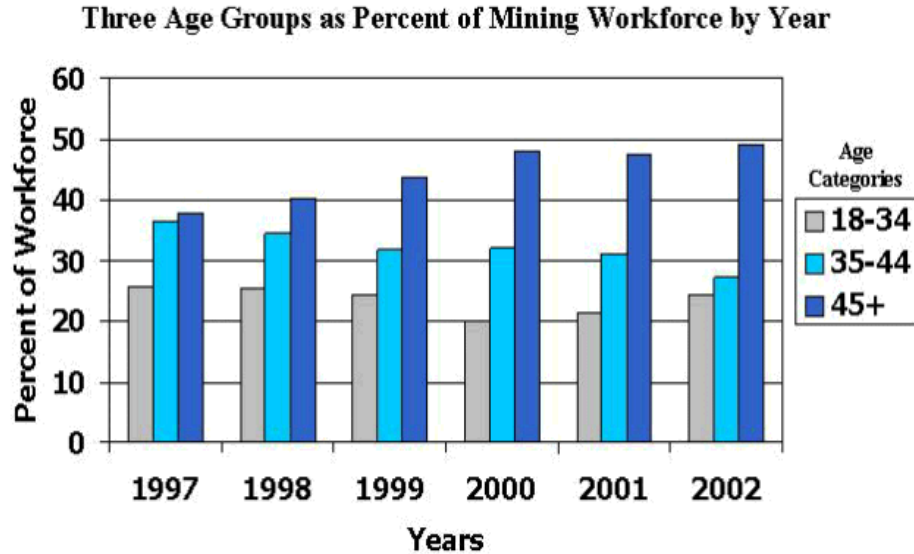
At the outset I want to share with you some facts about the central role of mining in our everyday lives that are often overlooked by most Americans. For example, the words you read here were originally processed through computer hardware and software systems that require dozens of mined minerals ranging from clay to copper to gold. In other words, before hardware and software, you must have earth ware - the minerals that form the foundation on which the U.S. economy is built. Similarly, the ink that forms the words you read is derived from minerals. The light by which you read may be produced by a tungsten filament fueled by electricity transmitted through copper wire and generated from the burning of coal which produces over 50 percent of our nation's electricity. Yet, despite its indispensable contribution to American commerce, mining is, at its core, a business subject to the perverse whims of geology, economics and public policy. Still, to the industry's credit, technological ingenuity and prudent planning have enabled the industry to contend with and even overcome these challenges, while improving the safety and health conditions for our nation's miners.

NMA's members - who produce most of America's metals, coal, and industrial and agricultural minerals and who manufacture mining and mineral processing machinery, equipment and supplies - sincerely appreciate this opportunity to discuss with you the changes that are occurring in the demographics of the mining workforce, what we believe the future holds and the steps Congress might consider to help address these matters. Let me clarify at the outset that I will be describing our workforce needs primarily from the standpoint of what demographics tell us. But, as has been widely reported of late, the demand for all minerals – coal and metals – is at historic highs around the world. As a result, our members are facing workforce demands for economic as well as demographic reasons.

It comes as no surprise that our workforce, both salaried and hourly, is aging. For this reason alone we will need to hire miners of all skill levels within the foreseeable future. What might come as a surprise is the fact that the median age of the mining workforce is rising more rapidly than that of

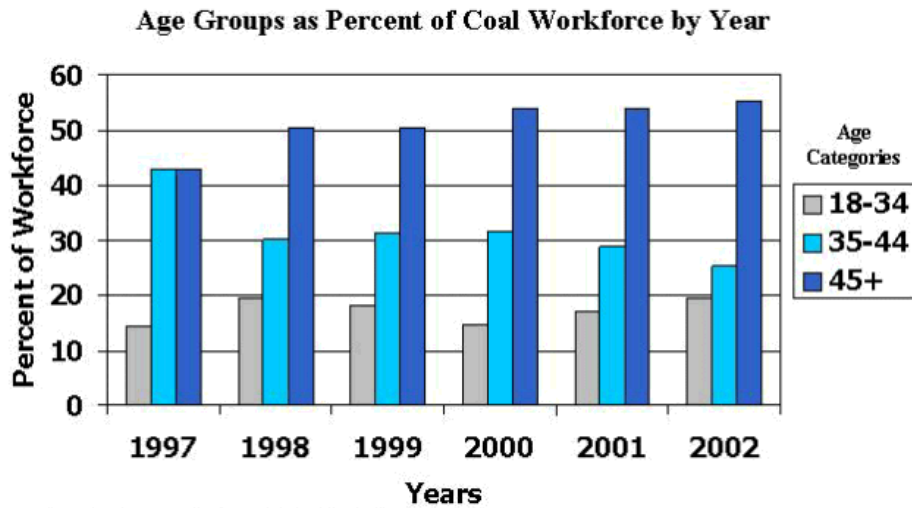
the overall U.S. civilian labor force. This fact highlights why mining companies are facing a potential worker shortage earlier than other industry sectors.

As reflected in the following charts, which are based on Bureau of Labor Statistics 1992 survey data, approximately 50 percent of the mining workforce is more than 45 years old.

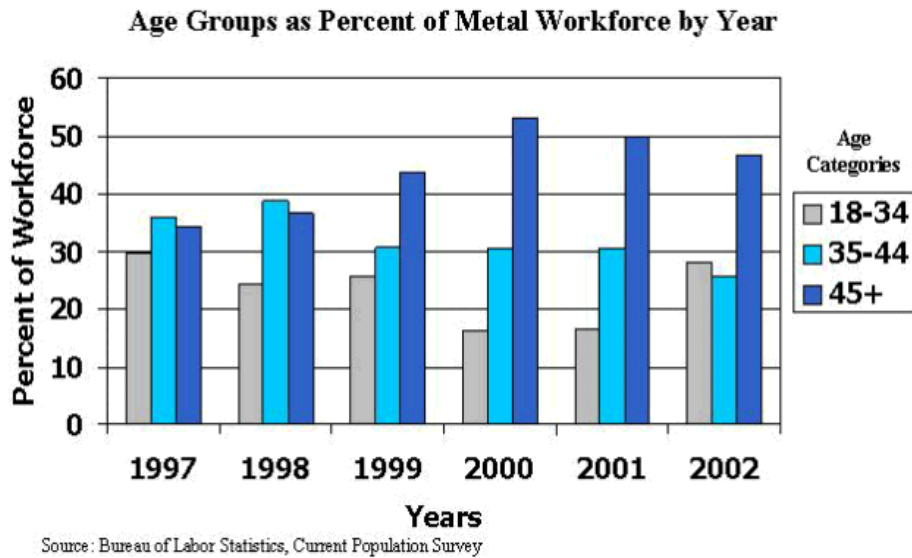


Source: Bureau of Labor Statistics, Current Population Survey  
Excludes oil and gas extraction

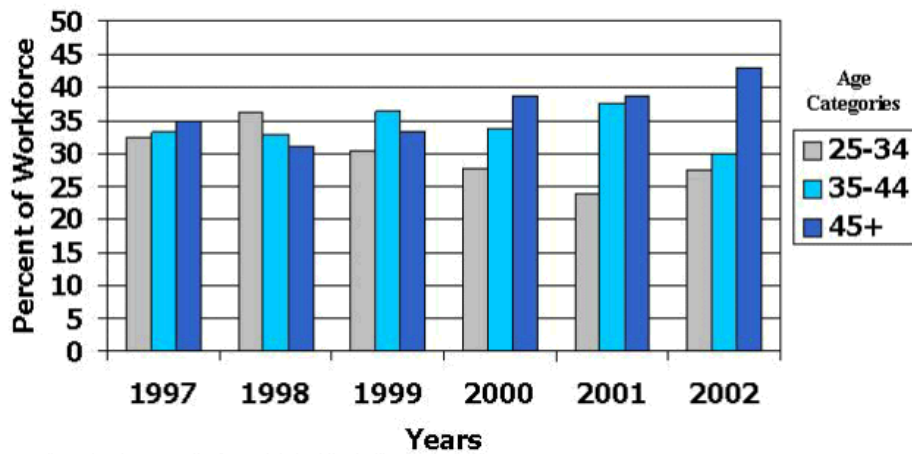
Within the overall coal sector the percentage is approaching 55 percent, with a distinction between surface and underground mine workers; we will need to replace a major portion, approximately 50 percent, of the underground coal mining workforce within the next 5-7 years.



While not as dramatic as the coal sector, both the metal and non-metal mining sectors will face a similar situation within the coming decade, as illustrated in more detail in the next two charts.



**Age Groups as Percent of Non-Metal Workforce by Year**



Where we find these new miners and whether we have a system in place to train, retain and re-train these individuals are major points of discussion throughout the industry.

Unlike many other industrial sectors, the cyclical nature of the mining industry has resulted in the relocation of thousands of previously employed workers to other geographic regions where non-mining job opportunities were more abundant. As a result, in many regions, we no longer have a pool of experienced miners from which to draw upon. Those that do remain are older and thus their remaining job longevity will be of a shorter duration.

Another factor impacting our workforce requirements is the ever-changing production methods employed throughout the mining industry. Today, many segments of our industry are mining more products, at a quicker pace, than at any time in the history of the mining industry. Previously mothballed mines are being reopened, limited exploration is underway and existing mines are exploring new and innovative ways to move product to market more quickly and more cheaply on a unit cost basis. This increased production and productivity, which are necessary to fuel our economy and meet the world's growing demand for minerals, have further heightened the workforce pressures.

Today's mining industry is a high-tech wonder that employs sophisticated equipment to produce more while adhering to strict safety and environmental standards. Miners entering the workforce need to be highly

skilled. Basic on-the-job training no longer suffices. It is imperative to have equipment operators that are capable of understanding and operating larger and more technically complex computer-controlled mining machines, understanding and analyzing real-time data acquisition systems, and applying system engineering approaches to problem solving. Simply put, today's miners – and surely tomorrow's – will need skill-sets well beyond those of their predecessors and we can anticipate that these needs will accelerate. How these skills will be obtained in advance of employment is a continuous challenge.

Why this has occurred and what can be done to address this trend has and continues to be the source of discussion and debate. Some attribute the decline in prospective mining school applicants and the demise of our Nation's mining schools in part to government policies that have discouraged mining investment – and, therefore, employment opportunities. Students generally are not attracted to fields for which the job outlook is not good or to which some other misperceptions have been attached. Others attribute this to the uncertainty of mining employment brought on by increased mechanization. While the truth probably encompasses all of these factors, the full picture is that today's mining industry has an upbeat future and employment opportunities in the industry will be brighter than they have been in several decades -- if the right government policies on permitting, access, and bonding, to name a few, are in place.

This view is echoed in a study now in final review that NMA has commissioned by Balfour Holdings, Incorporated on a variety of topics, including a chapter on the "State of the Professional Mining Workforce." The Balfour report notes the following:

- “1. With ever increasing population growth and the global desire to improve living conditions in developing nations to Western World standards, the extraction of mineral resources in future years will have to expand greatly in all areas.
2. As demand for mineral products increases and existing resources are depleted, identification and production from new deposits will entail significantly more difficult technical and environmental challenges, requiring a highly skilled workforce.

3. Overall mining industry employment has fallen dramatically, decreasing the numbers of experienced mining workers available for industry sustainability, much less expansion, at all levels.
4. The existing U.S. mining labor force is rapidly aging, with many approaching retirement during the next 10 to 15 years.
5. Just as demand for mining workers appears poised for expansion, the capability to provide new mining professionals has significantly deteriorated through the downsizing and disappearance of university degree and other programs offering this very specialized education.”

The solutions to these workforce issues are multi-faceted and are dependent upon the skill level of the employee being discussed. In the near term, the coal industry will need to replace a major segment of its hourly workforce. While the skills required at this level do not rise to the level required of mining or electrical engineers, they are nonetheless critically important. Traditional recruitment tools and training packages, while sufficient in some regions do not appear to be adequate in others. It is this latter group where the greatest concerns exist.

Regrettably, our industry no longer has the good fortune of a vibrant cadre of mining schools to train the next generation of miners. While those schools that remain are responsive to the needs of the mines located within their region, many regions are without coverage and it is incumbent upon the industry and, we believe, the Congress to examine alternative arrangements to ensure that an educated, skilled workforce exists for decades to come.

Since 1985, ten mining departments have ceased operating at U.S. academic institutions and two others are tentatively scheduled to close later this year. Those that remain face continued pressure from administrators to justify their continuation, reduce costs and reduce the scope of their programs or merge with other programs. While these pressures should decrease as more students enter these programs, we remain concerned that near-term cost cutting demands will not allow adequate time for projected enrollment increases. Thus, we face the prospect of increased employment opportunities for highly-skilled employees, but insufficient capacity to obtain the requisite education because of the demise of our mining-focused academic institutions.

Recognizing these facts, the question that arises is what then can we do collectively to overcome this situation?

- First, NMA believes Congress must recognize that a healthy and vibrant mining industry is important to the economic well-being of our Nation. Government policies must promote the compatible goals of mining industry growth and responsible environmental stewardship. Increased coal production to meet projected increases in U.S. electricity demand and access to minerals to drive our economy – in the face of worldwide competition – are economic imperatives. Acknowledgement of this reality in our public policies will, in the long term, instill confidence in job prospects and, in turn, improve the applicant pool for our mining institutions.
- Second, we need to work with our Nation’s academic institutions, both 4-year degree and 2-year technical programs, to ensure that the supply of programs being offered is sufficient and relevant. Education of mining engineering students, at both the undergraduate and graduate level, is dependent on research activities conducted at academic institutions. This process has been initiated by some mining companies in partnership with the Department of Energy through the Mining Industry of the Future Program, but it needs to be broadened.
- Third, and most important, we need to ensure that a minimum funding commitment is available to assist these institutions as they transition to meet the needs of today’s resurgent mining industry. This is a responsibility that we share – to educate and train tomorrow’s workers for tomorrow’s jobs. Mining companies are today providing endowments for mining schools but this alone cannot close the funding gap.

Madam Chair, in closing let me again thank you and the Members of this Subcommittee for the invitation to testify and for drawing attention to these issues. Decades ago, in enacting the first Federal law to protect the safety and health of our Nation’s miners, Congress declared the miner to be the industry’s most precious resource. That declaration is truer today than ever before. The sustainability of a competitive domestic mining industry to provide the coal and minerals that are a critical part of each of our everyday lives and our national well-being is dependent upon our continued ability to attract and retrain a highly-skilled, educated workforce.



Thank you. I am happy to answer any questions you may have.