

# **Paying for your skills: A case study on how the early 90's South African skill shortage was addressed.**

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## **ABSTRACT**

According to PWC 'Aussie Mine 2023: Critical Choices', '86% of mining executives believe it is harder to recruit and retain the talent they need, specifically in the fields of mine planning and process engineering.' Enrolments in mining engineering and metallurgy are down, in the period from 2013-2018, enrolments dropped 80%.

The AusIMM Resources education collaboration summit, 2019, identified the following criteria that could address the skills shortage in Australia:

- Collaboration between industry, university, and government.
- Enhancing existing education pathways and an increase in mining career education in secondary schools.
- The formation of an overarching collaborative body to take ownership of the program.

In South Africa in the early 90's a skills shortage of mining engineers and metallurgist was identified. This paper presents the case study of the comprehensive undergraduate scholarship program that was developed by Industry and the universities to meet this challenge. It has been a success and is still active. Today the South African universities; Witwatersrand University School of mines and Pretoria University department of mining engineering have increased enrolments and the scholarship program has an above 80% graduation success in engineering disciplines.

The scholarship program includes intensive recruiting, mentoring and post university job guarantees.

Similar programs from around the world and historical programs will be researched and each program will be compared to the criteria identified by the AusIMM Resources education collaboration summit.

The research method will include a literature review, the South African scholarship program case study and interviews with various mining and metallurgical engineers from different countries and age brackets.

The main objective of the paper is to see what lessons from history and around the world could be applied to the current skills shortage in Australia.