

# 棒球代訓選手比賽表現分析

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## 摘 要

本研究主要目的為尋求 2009 年國內棒球替代役選手的績效評估與檢視，經由區分投手投球與野手攻擊表現並求取其相對效率後，分析並檢視影響選手表現之因素。研究方法運用描述性統計檢視計算資料；運用資料包絡分析法求取投手與野手的效率分析、規模報酬分析、差額變數分析、敏感度分析。研究結果發現代訓投手 P2 的表現最佳；敏感度分析顯示被全壘打率與被打擊率為影響投手整體投球表現最重要的項目。代訓野手表現最佳為 F14；敏感度分析顯示打擊率、打點與三振率為影響野手整體攻擊表現最重要的項目。因此未來若能建立更完善的棒球紀錄系統，將選手各階段之成績更趨完整的紀錄下來，以提供各職業球團作為提升代訓選秀與競技實務的依據。

**關鍵詞：**資料包絡分析法、台灣棒球、替代役、投手、野手

# **An Analysis of Substitute Services Baseball Players in the 2009 Season Game**

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## **Abstract**

The purpose of this study was to evaluate the performance of 2009 Taiwan baseball substitute services. The substitute services baseball players were separated into pitchers and fielders in order to figure out the relative efficiency. This study used not only descriptive static but Data Envelopment Analysis to process the efficiency analysis, return to scale analysis, slack analysis, and sensitive analysis of the pitchers and fielders. The results showed that P2 was the best pitcher. The sensitive analysis figured out Home Run per nine innings, and Opponents Batting Average were the most important factors for the performance of pitchers. F14 was the best fielder. The sensitive analysis figured out Run Batted in, and Strike Out Rate were the most important factors for the performance of fielders. This study suggested to create the establishment for players' record systems in the future, in order to provide more information for professional teams in promoting manage efficiency for the baseball substitute services.

**Key words: data envelopment analysis (DEA), substitute services, Taiwan  
baseball, pitcher, fielder**

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