Based on the results, each type of printing strategy has its own strengths and weaknesses. FIFO’s strategy seems to be the most fair, the first job submitted will be the first job done and the second job submitted will be the second job done, etc. However, that is also its weakness. Because FIFO is fair, it has nothing to do to improve the efficiency except getting more printers or getting a printer that can handle more pages per tick. Next is SJF and this strategy is efficient when it comes to total wait time. SJF has the lowest total wait time compared to each printing strategy and their department’s total wait time (except for MLQ's Administration total wait time, which will be discussed more later). However, the weakness of SJF is that the longest wait time of each department is the largest of all printing strategies (except for MLQ’s Students longest wait time). Because longer jobs are the lowest priority of the SJF, longer jobs get done last and, thus, take forever to get done. Finally, MLQ’s printing strategy. MLQ's strength is that it gets the top priority jobs done fast. Like, incredibly fast. The Administration department's total waiting time and longest wait time is the lowest of all departments and printing types by a significant amount. However, the other two departments suffer for this quick printing. The MLQ's Faculty total and longest wait time is the largest out of the three printing strategies' Faculty stats and MLQ's Student total and longest wait are the worst out of all total and longest wait times. If I had to sum up the strategies into a phrase, it would be the following:

Most Fair: FIFO

Best Average Wait Time: SJF

Most Efficient for One Department: MLQ

My recommendation is the following:

I would recommend that the college use the FIFO printing strategy for three reasons. One, this strategy is the most fair for all departments. No one department is more important than the others, nor is one type of job more important. It doesn't matter who you are or what type of job you have, you will be helped after the person in front of you (the person who took the extra time to submit in the job earlier than you) is helped first.

Second, FIFO's longest wait time stats are the shortest. Except for MLQ's Faculty and Administration's longest wait time, FIFO has the lowest longest wait time for each department which means each job's wait time is either at or below that number. Also, it is worth noting that MLQ's Faculty longest wait time is only better by FIFO's longest wait time by 4 tick. So, FIFO has one of the best longest wait times compared to the other printing strategies’ departments.

Finally, FIFO has the best total wait time while still being fair to all departments. While SJF and MLQ's total wait time is better than FIFO’s total wait time in some departments, they sacrifice being the better total wait time by showing favoritism to a department or job length. FIFO, on the other hand, helps each job in the order it came in and still has a pretty good wait time when viewed with context. When compared to the other departments, FIFO's Administration total wait time is ranked third with 8612 ticks, Faculty is second with a total wait of 6108 ticks, and Student is second with 3544 ticks. Each time, FIFO is only worse by around 400-1000 ticks compared to SJF's total wait time. I understand that the following numbers are in job-minutes, but FIFO still has a good total wait time while still being fair. If the total wait is only worse by 400 ticks, that means that all 193 jobs are waiting an average 2 ticks longer. If the total wait time is worse by 1,000 ticks, then it needs to wait an extra 5 minutes. Considering the fact that SJF's whole purpose is to do the shortest job first, therefore hopefully bringing down the average wait, I would say FIFO does a really good job of keeping up with SJF’s printing strategy without even trying to lower the average wait. Also, FIFO's printing strategy is more fair than MLQ's strategy, where MLQ ranks Administration as the most important, faculty as second, and student as third. If the goal was to get the most important department's jobs done first, then I would say MLQ is better than FIFO. But that isn’t the goal.

The goal is to find the best strategy and for that, we need to ask ourselves two questions: what is the most fair for all departments and what is the most efficient. There is no doubt that FIFO is the most fair because it takes the jobs as they were submitted. It doesn’t take in to account what department sent the jobs or how long the jobs will take. All that matters is what job got here first. Second, FIFO’s stats are impressive when viewed with context. FIFO, without even trying to be the most efficient, comes in second for the smallest longest wait in the Administration department and the Faculty department and comes in first in the Student department. Also, FIFO is third with the total wait in Administration, second with Faculty, and second with Student. Each time, FIFO is beat by SJF’s total wait by 2-5 average ticks per job. In conclusion, I would say FIFO is the best blend of being fair and getting the job done efficiently and, thus, would recommend that FIFO be implemented as the printing strategy.