

ACCREDIT TIME



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A Question of Efficiency:

“What is the distribution of requested runtime and actual runtime on jobs on each partition?”



The average completed job, across all partitions, utilized **5.5%** of the time initially requested for the job.

At-least **50%** of completed jobs, across all partitions, utilized between **0.11%** and **1.4%** of the time requested for that job.

Distribution of Used Time To Requested Time

Pascal

average job use/request ratio of **8.8%**

50% of jobs use/request ratio is between **0.13%** and **1.9%**

Turing

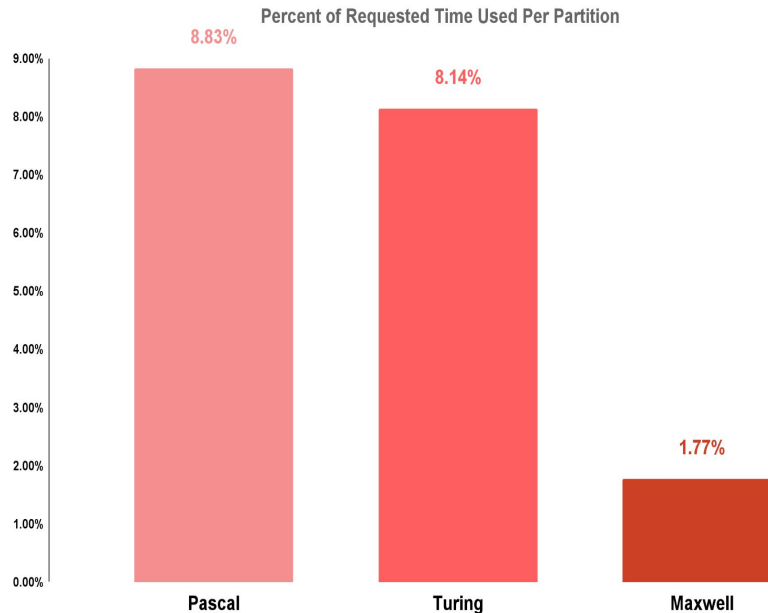
average job use/request ratio of **8.1%**

50% of jobs use/request ratio is between **0.36%** and **10.9%**

Maxwell

average job use/request ratio of **1.8%**

50% of jobs use/request ratio is between **0.03%** and **0.62%**



Time Bandits? Partition Use/Request Ratios

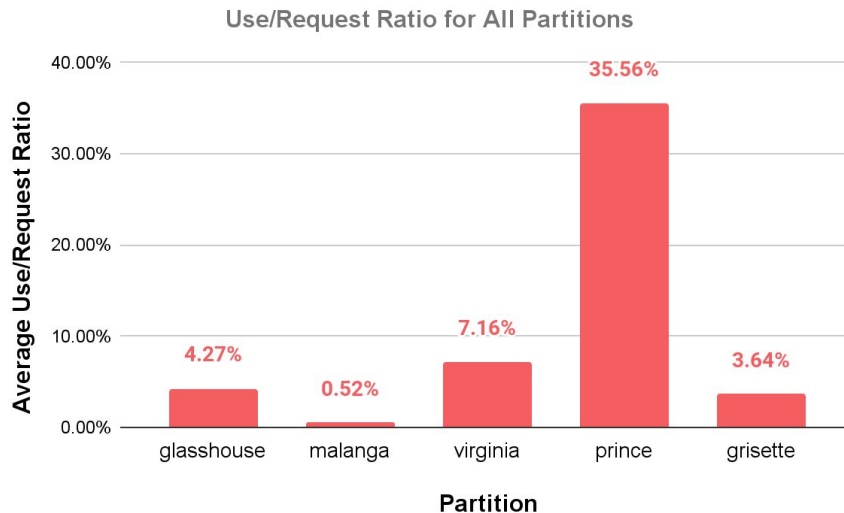
Glasshouse, while not the most inefficient account, represented **83.67%** of all completed jobs across all partitions. The average used time ratio for their jobs was **4.3%**

Virginia accounted for **3.4%** of completed jobs. They used an average of **4.2%** of time requested

Malanga accounted for **3.5%** of completed jobs. They used an average of **.52%** of time requested

Prince accounted for **2.6%** of completed jobs. They used an average of **35.6%** of time requested

Grisette accounted for **2%** of completed jobs. They used an average of **3.6%** of requested time.



What about GPU efficiency?

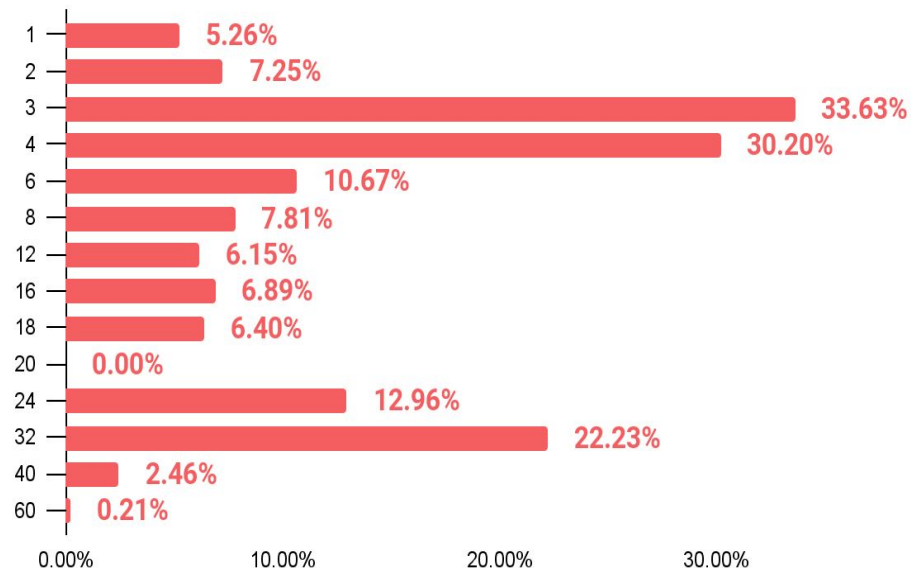
On average, jobs that request **3 to 4 GPUs** tend to have a higher ratio of used time to requested time

Jobs requesting **3 GPUs**, on average, use **34%** of the time requested. Middle **50%** of jobs use/request ratio is between **0.04%** and **86.01%**

Jobs requesting **4 GPUs**, on average, use **30%** of the time requested. Middle **50%** of jobs use/request ratio is between **0.06%** and **50.77%**

Jobs requesting **1 GPU** are the most popular use-case across all partitions. However, the average job uses **5.3%** of the requested time. Middle **50%** of jobs use/request ratio is between **0.11%** and **1.35%**

Percent of Requested Time Used Per GPU Across All Partitions



A Question of Time:

“Do users really need more time, or are they simply always requesting the maximum?”



9.5%

of completed jobs request at-least 5 days of time. Of the jobs that requested at-least the maximum time, the average use/request ratio was 8.1%.

The Schedule

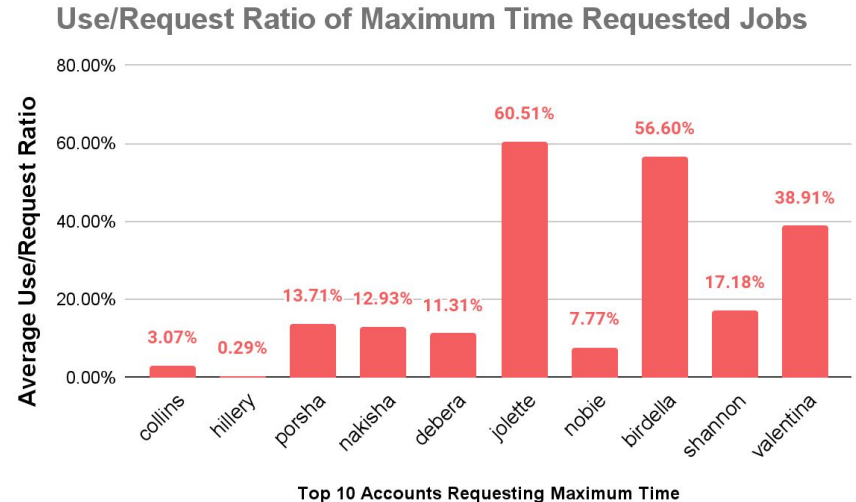
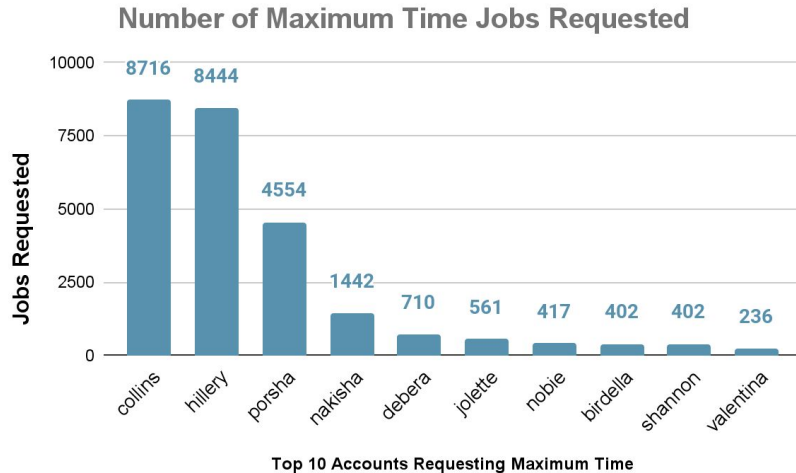
Although 9.5% of jobs request at-least the maximum amount of time, I began to wonder ...



Of the users that request at-least the maximum time for a Job, **How much of that time that are they using?**

Top 10 users who request at-least 5 days of time.

Collins and **Hillery** requested the maximum time more frequently than other accounts, **Jolette** and **Birdella** were the most efficient with using the time requested



Time Heroes?

The sample of the top 10 users who request at-leas the maximum time per job:

Jolette requested 2.2% of the jobs and had use/request ratio of 61%

Birdella requested 1.6% of the jobs and had use/request ratio of 57%

Hillery requested 33% of the jobs and had use/request ratio of 0.29%

Colollins requested 34% of the jobs and had use/request ratio of 3.07%

