Does having more physical memory automatically means fewer page faults?

FIFO - First In, First Out (with 4 physical pages)

Access	Hit/Miss	Evict	PO	PΙ	P2	P3
	Miss					
2	Miss			2		
3	Miss			2	3	
4	Miss			2	3	4
	Hit			2	3	4
2	Hit			2	3	4
5	Miss		5	2	3	4
	Miss	2	5		3	4
2	Miss	3	5		2	4
3	Miss	4	5		2	3
4	Miss	5	4		2	3
5	Miss		4	5	2	3

Total 10 misses with 4 physical pages (only 9 with 3 physical pages)