I believe the claim that hash table run in O(1) is a valid claim. As I was going through the data on this project, I noticed a pattern corresponding with what was discussed in class. When the table was less than 50% full, the number of collisions was relatively low. The average number of collisions was, at the maximum, 1.6 when the table was at or less than 50% capacity. Thus, the probe sequence was called a very low number of times, meaning the record being inserted found its place rather quickly, meaning probe sequence did not have to increment through the data. This is why I believe the claim holds that hash tables run in O(1) when at or less than 50% capacity. But if the table exceeds 50% capacity, the number of collisions increases exponentially. So therefore, I believe that the claim holds as it was intended. It was intended to be a rule of thumb when the table is at or less than 50% capacity, but as soon as you exceed that limit, the number of collisions increases dramatically.