The correct answer is \*\*(C) Kerry, because there is more variability in the proportion of browns among smaller samples.\*\*

Here's a breakdown of why:

\* \*\*Understanding Sampling Variability:\*\* The key concept here is sampling variability. The proportion of brown candies in any \*single\* bag will likely deviate somewhat from the manufacturer's claimed 50% due to the inherent randomness in the candy production process and the drawing of a random sample. The \*smaller\* the sample (i.e., the fun-size bag), the \*more\* susceptible the proportion is to this variability. This is due to the law of large numbers.

\* \*\*Why the other options are incorrect:\*\*

\* \*\*(A) Sam, because there are more candies, so his bag can have more brown candies.\*\* This statement is partially true (Sam \*can\* have more brown candies in \*total\*), but it misses the crucial point of \*proportion\* and \*variability\*. The question asks about the proportion of brown candies being \*greater than 70%\*.

\* \*\*(B) Sam, because there is more variability in the proportion of browns among larger samples.\*\* This is the opposite of the truth. Larger samples have \*less\* variability in the proportion (they are more likely to cluster around the true population value of 50%).

\* \*\*(D) Kerry, because most small bags will have more than 50% brown candies.\*\* This isn't necessarily true. While small bags \*can\* deviate significantly, there's no guarantee they'll skew towards >50%. They are simply subject to more variation.

\* \*\*(E) Both have the same chance because they are both random samples.\*\* Randomness is present in both bags, but sample size fundamentally affects the distribution of the sample proportion.

\* \*\*Putting it together:\*\* With smaller samples, the proportion of brown candies is more likely to jump around, sometimes exceeding 70% by chance. With larger samples, the proportion will more tightly cluster around 50%.

\*\*Therefore, the fun-size bag (Kerry) is more likely to have a proportion of brown candies greater than 70% due to the higher variability in smaller samples.\*\*