15. An insurer offers a health plan to the employees of a large company. As part of this plan, the individual employees may choose exactly two of the supplementary coverages A, B, and C, or they may choose no supplementary coverage. The proportions of the company's employees that choose coverages A, B, and C are $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{5}{12}$, respectively.

Determine the probability that a randomly chosen employee will choose no supplementary coverage.

(A) 0

(B) $\dfrac{47}{144}$

(C) $\dfrac{1}{2}$

(D) $\dfrac{97}{144}$

(E) $\dfrac{7}{9}$