1056-05-1319 **Tariq Akef Alraqad*** (tariq.alraqad@northern.edu), 1200 South Jay street, Northern State University, Department of Math & Science, Aberdeen, SD 57401, and **Mohan Shrikhande** (mohan.shrikhande@cmich.edu), Department of Mathematics, Central Michigan University, Mt. Pleasant, MI 48859. *Some Results On λ-Designs With Two Block Sizes.* Preliminary report.

A λ-design is a family $\mathcal{B} = \{B_1, B_2, \cdots, B_v\}$ of subsets of $X = \{1, 2, \ldots, v\}$ such that $|B_i \cap B_j| = \lambda$ for all $i \neq j$ and not all B_i are of the same size. The only known example of λ-designs (called type-1 designs) are those obtained from symmetric designs by a certain complementation procedure. Ryser and Woodall independently conjectured that all λ-designs are type-1. In this paper, we consider λ designs with exactly two block sizes. Let $g = gcd(r-1, r^*-1)$, where r and r^* are the two replication numbers. We show that the Ryser-Woodall conjecture is true for all λ-designs with two block sizes and $g = 7$ or $9 \leq g \leq 18$. We also give two results on λ-designs with two block sizes on $v = 9p+1$ and $12p+1$ points, where p is a prime. (Received September 21, 2009)