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Olivia M. Carducci* (ocarducci@esu.edu). *The Stable Matchings Exist, But Why?*

There are many variants of the classic stable marriage problem. In applications matching positions and job applicants, an important variant is to allow couples to express preferences over pairs of positions. It is known that there may not be a stable matching in this context and that finding a stable matching or showing that none exist is *NP*-complete. However, in practice, matches like the National Resident Matching Program (NRMP) are successful in finding stable matchings year-after-year. The question is why? What is it about the structure of the preferences in the NRMP that cause there to be a stable matching? This talk will summarize the known results in this area and present directions for further work. (Received September 17, 2013)