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Antonia E Cardwell* (antonia.cardwell@millersville.edu), Department of Mathematics, Millersville University, P. O. Box 1002, Millersville, PA 17551. *Path-connectedness of the space of norm-attaining functionals on certain Banach spaces.*

Consider the space of norm-one norm-attaining functionals on a Banach space X given by $\mathcal{A} = \{\varphi \in X^* : \|\varphi\| = 1 \text{ and } \varphi \text{ is norm-attaining}\}$. A characterization of the functionals in \mathcal{A} will be given for the Banach spaces c_0 (real and complex), ℓ_1 (real and complex) and $C[a, b]$ (for $-\infty < a < b < \infty$.) This characterization will then be used to prove constructively that \mathcal{A} is path-connected for the above-mentioned Banach spaces. (Received September 16, 2009)