ABSTRACT. We prove that a semialgebraic differentiable mapping has a generalized critical values set of measure zero. Moreover, if the mapping is C^2 we obtain, by a generalisation of Ehresmann's fibration theorem due to P. J. Rabier [rabier], a locally trivial fibration over the complement of this set. In the complex case, we prove that the set of generalized critical values of a polynomial mapping is a proper algebraic set.