A good preliminary to making investments in software reuse is to perform a business case analysis. This involves comparing the estimated reuse investment costs with the estimated reuse savings. The USC-UCI COCOMO 2.0 Project has been analyzing data and formulating estimation models for various aspects of reuse investment costs and reuse savings. This talk will provide a software reuse business case analysis framework, and summarize the key reuse cost drivers and their effects as identified to date.

On the investment side, these include the costs of domain engineering and architecting; component development, certification, and maintenance; asset library operations, and process modifications. On the savings side, these include the number of future products that will use the software asset, with savings conditioned by nonlinear software adaptation effects; software assessment and assimilation costs; and COTS integration costs. Other important factors considered in the business case analysis framework are the relevant lifetime of software assets, and the present value of future savings.