

## How are mental health treatment costs and productivity losses calculated?

For more information on the values in parenthesis below were determined, see the Help file “How were the cost of treatment of lost productivity values determined?”

In the BCA Tool, the Treatment Cost value (\$2,443) is multiplied by the user-input value for the number of people in the household. The Lost Productivity value (\$8,736) will be multiplied by the number of wage earners in the residence. If there is only one person in the residence, the Tool will calculate the Lost Productivity value for one wage earner. For any value higher than one for the number of people in the residence, the value will be determined by multiplying the Productivity Loss by the average number of workers per household. According to the 2013 American Community Survey 1-Year Estimates, this is 1.22 workers<sup>1</sup>. Users should override this value if the number of workers in the residence is known to be two or more.

Version 5 of the BCA Tool was the first to include these social benefits for the Flood, Hurricane Wind, and Damage-Frequency Assessment modules. The other modules already contained an avoided casualties (injuries and death) standard value that considers a quality-of-life impact. Therefore, adding social benefits for these modules would double-count benefits.

The BCA Tool incorporates the social benefits economic benefit by:

1. Keeping the social benefits and calculated losses-avoided benefits separate, then adding in the social benefits as a “lump sum” value after the Tool calculates the discounted losses-avoided benefits.
2. Because the fundamental purpose of the FEMA’s mitigation programs is to reduce future damage to property, social benefits will not be included in the BCA unless the project BCR is 0.75 or greater. Some mitigation projects can have very large, but justified social benefit values. Therefore, without making this restriction, there was the potential that mitigation projects could be deemed cost-effective based on social benefits instead of actual losses-avoided. This makes the social benefits calculation consistent with the environmental benefits policy for flood acquisition projects, which also requires a 0.75 losses-avoided BCR prior to inclusion.

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<sup>1</sup> Source: 2013 American Community Survey 1-Year Estimates:  
[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_13\\_1YR\\_S0501&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_1YR_S0501&prodType=table)