

## ADVANCED MATERIALS AND COMPONENTS

**Definition:** The advanced materials and components target captures business activity related to the production, fabrication, and manipulation of metal, metal substrates, non-metallic products, and electrical components including circuits and semiconductors. Advanced materials and components manufacturers in Greater Williamsburg leverage locational advantages due to proximity to large metal, non-metallic product, and electrical component customers including the United States Armed Forces, Thomas Jefferson National Accelerator, NASA Langley Research Center, and Newport News Shipbuilding among others. Regional advanced materials and components production in Greater Williamsburg also includes the manufacture of sophisticated scientific instruments, equipment, and other sensor technologies.

### Justifications

- From a location standpoint, Greater Williamsburg's proximity to sizable metals, materials, and components purchasers in the broader Virginia Beach MSA is an attractive selling point to suppliers seeking to relocate operations.
- Proximity to the Port of Virginia enables access to international markets among the region's Advanced Materials and Components manufacturers, an attractive selling point for internationally focused firms.
- Advanced Materials and components manufacturers in Greater Williamsburg displayed robust post-recession growth. From 2009 to 2016, advanced materials and components employers added 460 jobs to their payrolls (a gain of 55.2 percent).
- Advanced materials and components activity in Greater Williamsburg is nearly twice as concentrated regionally as the average community nationwide.
- Engineering and scientific talent is highly concentrated in the region – concentrations among aerospace engineers, naval architects, and electrical and electronics engineers were highly localized compared to the average community nationwide.

### Strategic Implications

- Greater Williamsburg makes a compelling case for advanced materials and components manufacturers who require highly skilled engineering and technical talent.
- Community "fit" is important to residents and prospective advanced materials and components manufacturers. Given the small acreage available to the region's economic development product, Greater Williamsburg should focus on small to medium sized advanced materials and components manufacturers.
- The Commonwealth of Virginia's tax structure may impact Greater Williamsburg's capacity to attract certain types of manufacturing operations. The commonwealth's structure favors labor intensive manufacturing operations compared to capital intensive operations.