

STARS methodology:

First the University of Kentucky Office of Research supplied data about the number of total employees, paid in full or in part, on a grant through the university between 2016 and 2018. Categories of temporary employees, retirees, graduate assistants, students, visiting scholars and fellows were filtered out and the result included 5736 unique names. This figure was used to report total UK faculty and staff engaged in research.

To determine the proportion of those faculty that were doing work that contributed to sustainability a list of search terms was created based on earth charter, UN sustainable development goals and knowledge of the types of projects specific to Kentucky and Appalachia that pertain to the ecological, economic and social objectives of sustainability.

The complete list of search terms is below including any notes about additional filters which were applied to refine those primary topical results.

agriculture	<p>Entries for the search term “agriculture” were scanned through to judge relevance.</p> <p>Keywords were “alternative”, “local”, “heritage”, “viability”, “sustainable”, “sustainability” “atmospheric” “eco”, “environment”, “conserv”</p> <p>“climate”, “health”, “pollut*” were used to further refine criteria. Entries with the search term agriculture also had to have one of these additional entries to be defined as sustainable. Further results from the Department of Equine Medicine and from the Department of Pharmacy were deleted after this second filter because the results weren’t sufficiently tied to sustainability as a whole.</p> <p>Remaining projects were randomly spot checked to ensure they supported ecological, economical and or human health and wellbeing.</p>
alternative energy	
Appalachia	<p>Representative of disadvantaged population and subject of significant research at UKY that advances environmental remediation and protection, social justice and economic viability.</p>
arbor	<p>For *arbor* the filter captured the word “harbor” in many medical resources which were unrelated to sustainability so results were filtered by department to increase specificity to sustainability for this search term.</p> <p>Many medical departments were excluded.</p>
cancer	<p>- a non communicable disease that contributes to premature mortality. The strength of this UKY research area is an impactful contributor to achieving the UN sustainable development goal of improving human health outcomes.</p>
carbon	
climate	
communit*	

CO2	CO2 results included some medical applications which were deleted because they were not specific enough to sustainability objectives
conserv*	
contamin*	
eco	
earth	
environment	
forest	
inequality	
invasive species	
justice	Results for keyword "Justice" which were granted to the department of Political science were reviewed and deleted because they were too broad and didn't apply to social justice or well being for a specific issue or population.
methane	
pollut*	
reclamation	
remediation	
renewable	
social determinants of health	
subsidence engineering	
sustain*	
*tobacco research policy	No results
transportation	
urban	

violence	
water	
weed science-	the topic of weed science was left unfiltered because of its inherent ties to human welfare, ecology, pollution and economic impacts.

\*The term bio was eliminated from the initial list of search terms because it captured too many results that weren't specifically related and those that were could be captured by other filter terms.

To refine results further the following changes were made:

Entries on the topic area "mental health" were reviewed, keeping only those that included the terms "social determinants of health", "HIV", "AIDS", "alcohol", "opioid", "substance abuse" or "community supports" in the abstract.

Entries in the topic areas of "aerospace" were removed.

Entries with the topic of "coal" were reviewed and only entries with keywords "storage", "capture", and "sequestration" were retained.

After this process there were 3088 unique names of faculty and staff working on sustainability related research. This equates to 54% of faculty and staff engaged in sustainability research. Total departments with at least one faculty or staff working on sustainability related research was 287 which represented 83% of the 347 departments with at least one faculty or staff doing research.