

## XSEDE Scientific Impact Metrics for the Yearly Report between May 1, 2019 - Apr 30 and the Period between Feb 1, 2020 to Apr 30, 2020

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### 1.1. Scientific Impact Metrics (SIM)

This appendix presents the current Scientific Impact Metrics data as of April 30 of year 2020. This is part of the *XD Metrics Service (XMS)* (formerly *NSF Technology Audit Service (TAS)*) effort.

#### 1.1.1. *Summary Impact Metrics*

Table SIM-1 shows the essential scientific summary impact metrics as of April 30 of year 2020. The increasing values for each metric are listed in the table indicating the changes during the last quarter. By calculating such metrics periodically we can show the trends, as depicted in Figure SIM-2 and Figure SIM-3. Both show steadily increasing trends.

Table SIM-1: Overall Scientific Impact Metrics Data

	Number of externally verified unique publications*	i10-index (Number of publications cited at least 10 times)	Overall citation count*	h-index	g-index
Since 2005 (TG+XD)	17,841	10,053	605,935	255	460
Since 2011 (XD)	15,295	8,023	407,243	200	349
Change since last quarter (TG+XD)	+697	+468	+33,023	+7	+11
Change since last year (TG+XD)	+2,246	+1,670	+122,547	+27	+44
Change since last quarter (XD)	+677	+446	+27,888	+8	+12
Change from a year ago <sup>2</sup> (XD)	+2,200	+1,621	+107,656	+30	+55
* Data updated as of April 30 <sup>th</sup> , 2020					

### 1.1.2. Historical Trend

Figure SIM-2 and SIM-3 show the increasing quarterly trend regarding publications, citations, and other impact metrics such as H-Index and G-Index. Both suggest the increasing impact of XSEDE during the past years, based on verified unique publication count; citation count; H-index and G-index.

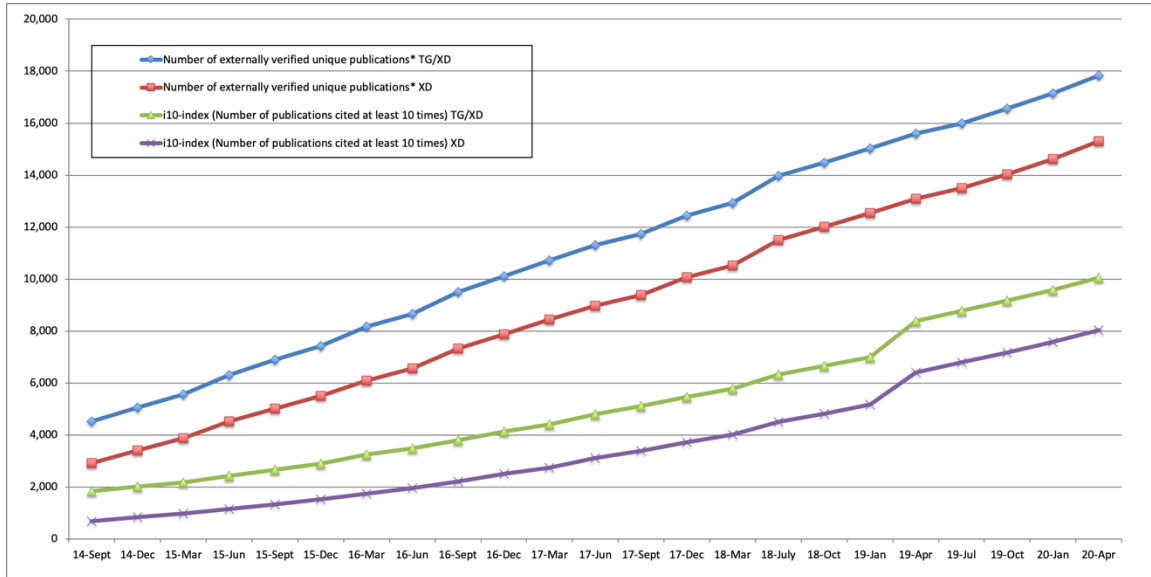


Figure SIM-2. Counts of all externally verified publications for TG/XD (since 2005) and XD (since 2011) and of those being cited at least 10 times (i10-index).

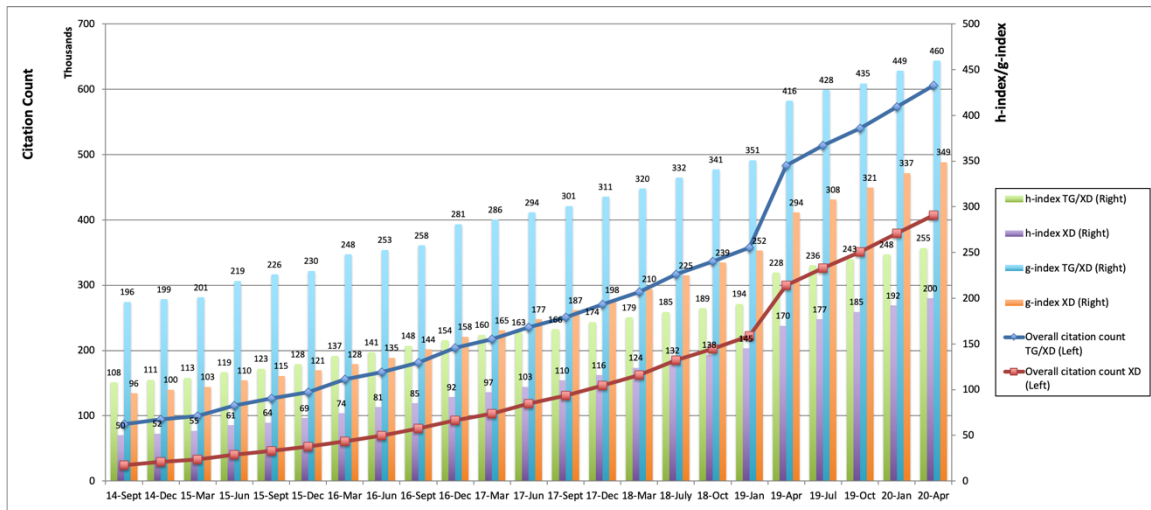


Figure SIM-3. Accumulated citation count (line, left axis) as well as h-index and g-index metrics (bar, right axis) for TG/XD (since 2005) and XD (since 2011).