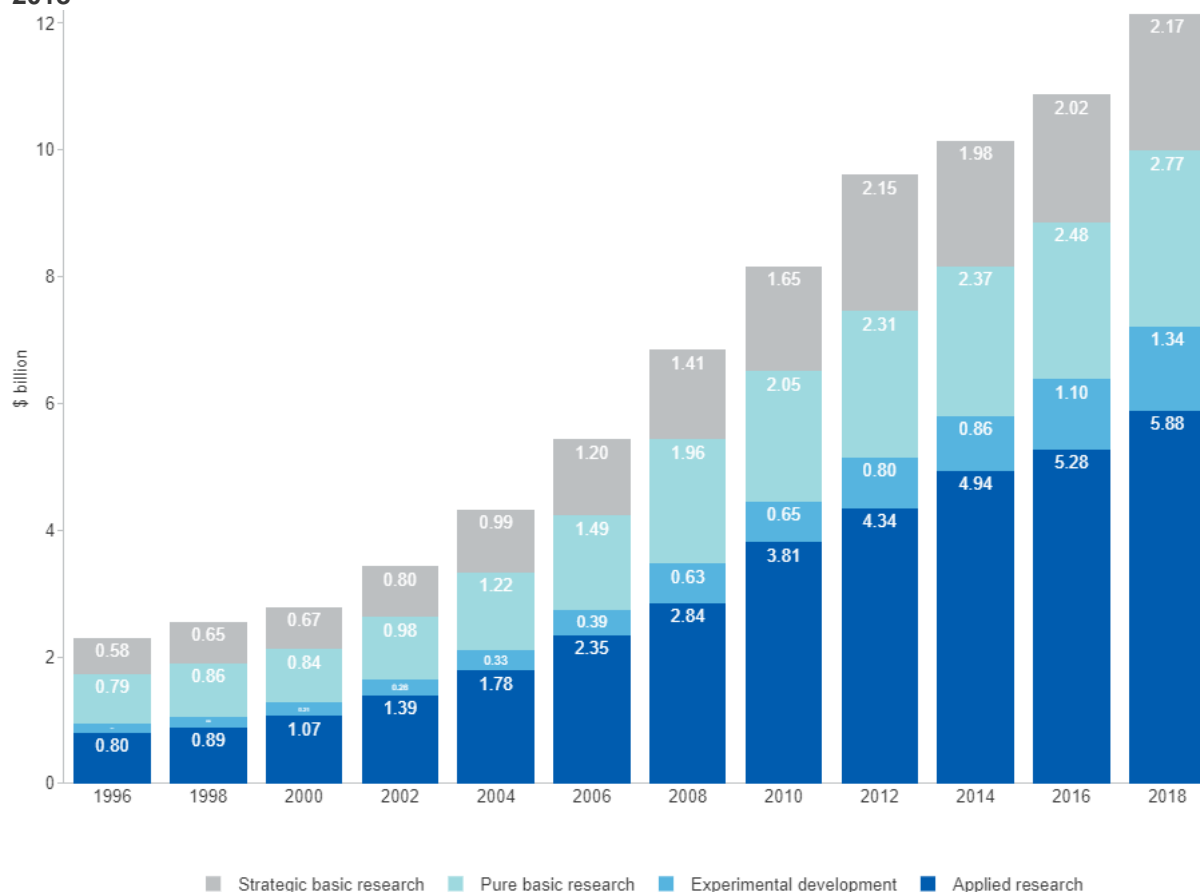


### 3.3.1 Higher education resources devoted to R&D (HERD) by type of activity

Total HERD, that is spending on R&D performed by Australian higher education organisations, contributed about 34 per cent to Australia's total spending on R&D in 2017–18.<sup>1</sup> As a share of GDP it remained stable at 0.62 per cent over the two year period from 2016 to 2018 (data not shown).

*Applied research*, the largest category within HERD, relates to original investigation undertaken in order to acquire new knowledge. It is directed primarily towards a specific practical aim or objective, rather than purely the acquisition of new knowledge which is the goal of basic research.<sup>2</sup> In 2018, nearly half of the research activity in the higher education sector was *Applied research* (\$5.9 billion or 48 per cent of total HERD). Its share, as well as its dollar value, has increased steadily since 1992 when it was only \$514 million or 30 per cent of total HERD. By contrast, *Pure basic research* recorded \$676 million in 1992 and grew to only \$2.8 billion in 2018. Its share of total research activity has declined from 34 per cent to 23 per cent over this time period.<sup>3</sup>

**Figure: Higher education resources devoted to R&D (HERD), by type of activity, \$ billion, latest 2018**



<sup>1</sup> ABS (2019) *Research and Experimental Development, Businesses, Australia, 2017–18*, Cat. No. 8104.0 (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/8104.0>)

<sup>2</sup> OECD (2015) *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development*, OECD Publishing (<http://www.oecd.org/publications/frascati-manual-2015-9789264239012-en.htm>)

<sup>3</sup> ABS, *Research and Experimental Development, Higher Education Organisations, Australia*, Cat. No. 8111.0 (<https://www.abs.gov.au/statistics/industry/technology-and-innovation/research-and-experimental-development-higher-education-organisations-australia/latest-release>)

This chart shows that, in the financial year ending July 2018, nearly half of research activity in the higher education sector was allocated to Applied research. The share of research allocated to this activity has increased between the financial years ending July 1992 and July 2018.