



TABLE 1-27

Summary of long- and short-term trends in U.S. performance on K-12 STEM indicators

(Trend)

| Assessment | Long-term trend | | Short-term trend | |
|---|-----------------|-------|------------------|-------|
| | Date span | Trend | Date span | Trend |
| NAEP Mathematics Grade 4 | 1990–2015 | ^ | 2013–15 | v |
| NAEP Mathematics Grade 8 | 1990–2015 | ^ | 2013–15 | v |
| NAEP Mathematics Grade 12 | 2005–15 | ≈ | 2013–15 | v |
| NAEP Science Grade 4 | 2009–15 | ^ | na | na |
| NAEP Science Grade 8 | 2009–15 | ^ | 2011–15 | ^ |
| NAEP Science Grade 12 | 2009–12 | ≈ | na | na |
| TIMSS Mathematics Grade 4 | 1995–2015 | ^ | 2011–15 | ≈ |
| TIMSS Mathematics Grade 8 | 1995–2015 | ^ | 2011–15 | ^ |
| TIMSS Science Grade 4 | 1995–2015 | ≈ | 2011–15 | ≈ |
| TIMSS Science Grade 8 | 1995–2015 | ^ | 2011–15 | ≈ |
| TIMSS Advanced Mathematics | 1995–2015 | ≈ | na | na |
| TIMSS Advanced Physics | 1995–2015 | ≈ | na | na |
| PISA Mathematics (age 15) | 2003–15 | ≈ | 2012–15 | v |
| PISA Science (age 15) | 2006–15 | ≈ | 2012–15 | ≈ |
| On-time high school graduation ^a | 2011–15 | ^ | 2014–15 | ^ |
| Immediate college enrollment ^b | 1990–2014 | ^ | 2013–14 | ^ |

≈ = indicates no significant change; ^ = upward trend in scores; v = downward trend in scores; na = not applicable because data are available for only two time points, so long term is the only trend.

NAEP = National Assessment of Educational Progress (see Appendix Table 1-1 and Appendix Table 1-3); PISA = Program for International Student Assessment (see Figure 1-5); STEM = science, technology, engineering, and mathematics; TIMSS = Trends in International Mathematics and Science Study (see Figure 1-3 and Figure 1-4).

^a See Table 1-23.

^b See Appendix Table 1-27.