Despite concerted efforts by industry leaders, activists and policymakers, the gender segregation of science, technology, engineering and mathematics remains extreme in postindustrial democracies – considerably more extreme, in fact, than in many less affluent societies. I consider one piece of this puzzle by exploring how adolescents’ aspirations for STEM work vary with societal affluence. Over-time data on eighth-grade boys and girls in 32 countries provide strong evidence that the gender gap in aspirations for mathematically-related jobs increases with societal affluence net of individual student traits (parental education, affinity for school, mathematics test scores) and stable country-level characteristics. Sensitivity tests confirm this affluence effect under diverse model specifications and controlling for cross-national differences in women’s educational and economic integration, the gender-labeling of science, and students’ Internet access. Results are consistent with arguments suggesting that cultural gender stereotypes more strongly influence career aspirations in “postmaterialist” societies.