**Study Question 1:** What percentage of U.S. 15-year-olds is interested in pursuing a career in science by demographics (gender, race/ethnicity, ESCS quarters, and immigrant status) and a school level variable (school location)? How does that change when looking at specific fields in science?

**Gender**

* U.S. boys outperform girls by 7 points on average, but girls are 10 percentage points more likely to envision a science career: 45% of 15-year-old girls vs. 35% of boys.
  + More than one in three 15-year-old girls sees herself working in medicine (37%), whereas less than one in ten boys (9%) expects to do so.
  + Girls are less likely to express interest in engineering and tech fields: though 26% of boys are interested in these fields, only 8% of girls are. In no PISA-participating country are girls more likely to see themselves in engineering/tech than boys.
  + Girls striving for engineering/tech careers performed at the same level as their male counterparts. Similarly, boys and girls who weren’t interested in science-related careers also showed no significant differences in PISA science scores. However, on average, boys interested in careers in medicine outperformed their female peers by 41 score points.
    - Among girls, there is no statistically significant difference between those interested in medicine and those not interested in any kind of science career.
    - Among boys, those interested in medicine outscore their peers interested in non-science careers by 44 score points.

**Race/ethnicity**

* Even after controlling for ESCS, gaps in student science scores by race/ethnicity persist.
* There are no statistically significant differences between the scores of White and Asian students at the lowest and highest quartiles of the ESCS index; yet, on average, a White student in the *lowest* ESCS quartile received a PISA science score of 482, while a Black student in the *highest* ESCS quartile received a score of 474.
* Fifty percent of Asian students foresee themselves pursuing science careers, whereas 38%, 39%, and 41% of Black, Hispanic, and White students do, respectively.
  + The percentage of students interested in engineering/tech ranges from 12% of all Black students to 23% of all Asian students.

**Immigration status**

* On average, 15-year-old students native to the U.S. tended to outperform their second-generation peers, who in turn tended to outperform first-generation students.
  + Indeed, the largest gap, 50 score points—or one-half of a standard deviation—was between native (506 score points) and first-generation students (456), with second-generation students (482) falling in between.
* Despite the 24-point score gap between native and second-generation students, there is *no* statistically significant difference between two groups of students after accounting for socioeconomic status, and the gap between native and first-generation students falls to 30 score points.

**ESCS**

* At the third national quarter of ESCS, there is no statistically significant difference between any of the three immigration categories.
* Career interest differences vary less by student immigrations status. For instance, 16% of students native to the U.S. imagine themselves working in engineering/tech versus 19% of second-generation students and 18% of first-generation students. As for medicine, 23%, 26%, and 25% of native, second-generation, and first-generation students indicate their interest in the field.

**School location**

* On average, 15-year-old students who attend schools whose principals say are in non-urban locations in the U.S. tended to outperform their peers who attend schools in urban locations by 24 points.
* There were few difference between students who attend non-urban schools versus urban schools in terms of their preferences for science careers. For non-science careers, general science careers, and engineering/tech, there was no significant difference between the percentages of urban students interested in these areas versus non-urban students. For example, 60% of non-urban students were not interested in science careers, while 60% of urban students were interested in science careers. The only significant difference was between those students interested in careers in medicine: 25% of non-urban students were interested in careers in medicine, while only 22% of urban students were interested in careers in medicine.

**Study Question 2:** Are the careers of students’ parents associated with the careers students expect to have themselves? For e.g. if a parent has a career in science, is a student more likely to express interest in a science career?