



## The Numbers Don't Lie

The story of the black women who became “human computers,” mathematicians, and engineers for NASA is the true story behind the film *Hidden Figures*. More than 50 years ago, they confronted employers who hired them only reluctantly. They worked in a southern state that was determined to oppose federal civil rights laws and to hold on to segregation, and in an age when women were generally encouraged to become housewives, nurses, teachers, or secretaries.

How they persisted, how they achieved their goals in spite of the many obstacles in their paths, how they convinced others who doubted them of their value as employees and even leaders—these are the lessons of *Hidden Figures* that are important for all students to learn today. Together, these women were able to accomplish more than they ever could have as individuals; they strengthened each other's determination, encouraged each other in dark times, and worked to assure the success of their whole team.

But that was half a century ago—ancient history. Aren't things different today?

Let's start to answer this question by looking at the statistics for 2012 from the United States Department of Labor (below): Why is there such a difference between each group's size

in the total population and its representation in computing jobs? How many possible explanations can you think of? Are these numbers the result of personal choices, discrimination in hiring, diverse educational experiences, or something else? How much change has there really been in the past 50 years?

As you think about careers today, think about the education you are engaged in right now. As a student, have you been encouraged to pursue courses in science, technology, mathematics, and engineering? How many such courses are offered at your school? Are there after-school activities you can join that will increase your ability to use computers and solve problems? Do you have some role models or mentors who can help you learn about these subjects?

And what about the future? What will job prospects be like for you as you graduate? Will you find a career that not only supports you financially, but that you can feel passionate about? One in which you can take pride? Now is the time to start planning that future. As you consider your own goals, think about your own strengths and the determination you have to overcome any obstacles you might face, and then plan a path that will really help you achieve, just as Katherine, Dorothy, and Mary did.

Women hold 57% of professional jobs in the U.S., but just 26% of technology jobs and 19% of software development positions. Women hold just 5% of leadership positions in technology.

Black and Hispanic people make up 30% of the U.S. population (12% black and 18% Hispanic).

Black and Hispanic men hold 9% of U.S. computing jobs. (Black men hold 4% of these jobs and Hispanic men hold 5%.)

Black and Hispanic women hold 4% of U.S. computing jobs. (Black women hold 3% and Hispanic women hold 1%.)