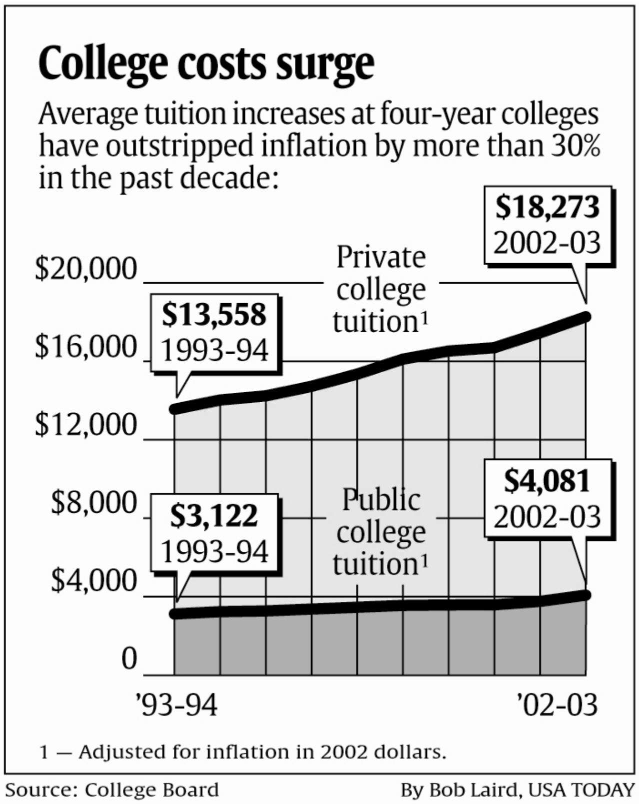
MATH TODAY™ Student Edition

Activity 11:

College costs surge



Focus Questions:

Q. The USA TODAY Infograph, "College costs surge" shows the average public college tuition for 2002-03 at $4,081. What is the estimated average tuition if there is a 4% annual increase over the next 18 years?

Q. Based on $1,000, what is the difference between investments at 12% simple and compound interest after 10 years?

Q. How much of a difference is there between two investment plans if you start at age 20 and make regular deposits annually for ten years or you start at age 30 and make the same regular deposits until early retirement at age 55?

See reading comprehension questions on the last page.

Activity Overview:

This activity will give you the chance to investigate the difference between simple and compound interest. You will spend time estimating the expense for a public college education by using the exponential growth equation. A spreadsheet will be used to explore the difference between two investment plans, one that invests at the beginning of a career and stops contributing after a period of years, and one that waits a period of years to start the savings plan. You will then compare the two plans to determine if there is a significant difference between them.

For use with the TI-Navigator™ Classroom Learning System

USA TODAY ✕ ÷ + —

USA TODAY News

Plans to tackle college costs risk tripping up students

NEWS SECTION - MONDAY - JANUARY 5, 2004 - PAGE 12A

USA TODAY

Our view:
But Congress can give families the data to make smart choices.

At the University of California at Los Angeles, tuition soared 43% this school year. At Arizona State University, tuition rose 39%. Across the USA, costs at four-year public colleges increased 14% on average, not counting hikes for room, board and fees.

The sharp spikes have caused students and parents to complain to just about anyone who will listen. And in Congress they're getting a particularly sympathetic ear. Republicans in the House of Representatives are pushing a plan to punish public and private colleges if their tuition increases outpace inflation.

Democrats want to penalize flinty state legislatures that slacken their support of higher education.

Obviously, something needs to give. Between 2001 and 2003, the average tuition and fees for public colleges rose from $3,487 to $4,694. For private colleges, the hike was from $16,233 to $19,710.

These tuition jumps are unusual only because of their size. During the past 22 years, tuitions at four-year public colleges rose by 202% while the consumer price index rose by 80%. If recent trends continue, by 2010, tuition and fees alone will be $7,082 for a public four-year college and $28,182 for a private institution.

But the crude tools Congress wants to forge to control runaway tuition aren't right for the job. In fact, the federal government itself laid the foundation for many of today's college funding troubles because of the way it has chosen to finance higher education. By tampering with that system now, the government risks hurting the students that federal aid is designed to help.

Aid goes to students

For the past 30 years, federal support for higher education has been sent not to colleges, but directly to students. This year, it included $11.7 billion in Pell Grants for poor students, $47.7 billion in federally backed tuition loans and $5.4 billion in tax credits.

Democrats believed the system let them target needy students. Republicans saw it as a market approach that allowed students to attend the colleges of their choice.

But the federal spending decisions added to the college-funding crisis. Consider:

- **They do too little to lessen the financial burden for students who need help the most**. During the past three years, as tuition spiked, the maximum value of Pell Grants that the federal government provides to poor students has risen only 1%. At public four-year colleges, the average Pell Grant of $2,421 covers less than 30% of the total cost, according to the College Board.

In the meantime, the higher education tax credits passed by Congress in 1997 helped middle-class families but did nothing to increase access to college for poor students. Poor families can't get refundable tax credits for tuition, and poor students can't use the credits to purchase textbooks.

As a result, college costs eat up 71% of earnings for low-income families but only 6% of the income of the top 25% of earners, according to the College Board.

- **They don't have a workable way to hold colleges accountable for profligate spending**. By providing aid directly to students instead of colleges, the federal government has little say in how schools spend their money. Unless the federal government starts directly funding colleges, the responsibility for reining in tuition belongs to the states, not the federal government. In fact, trying to control tuition costs under existing federal financing mechanisms would backfire on students.

Republicans, for example, propose restricting federal work-study grants at colleges with high tuition hikes. But those grants go to lower-income students.

The Democrats' proposals present similar problems. They would reward schools that keep tuition low by enriching the value of Pell Grants for those colleges' students. But that would take money away from poor students at other schools.

Give parents powerful tools

Just because the federal government can't easily force cost controls on colleges doesn't mean it can't provide any help to families worried about rising tuitions. In fact, by collecting and distributing data – much of which is already available – the federal government could make parents better shoppers and state legislators better overseers of state colleges. Releasing the average price change for each college over the past decade, for example, could become part of a college's affordability rating.

That and other data could appear on college-by-college report cards providing information not found in most private college rankings – such as scores on graduate school exams and job placement rates. Also important is knowing how many students graduate in four years.

The federal government has a role in the college affordability debate. But that role can't involve swinging a big stick that's most likely to hurt students.

Reading Comprehension:

Q. According to "Plans to tackle college costs risk tripping up students" the average tuition and fees for public colleges increased from $3,487 to $4,694 between 2001 and 2003. What change was seen in private college tuition and fees during this period?

A. ______________________________

____

____

Q. The increases have prompted students and parents to voice their concern and gain the attention of Republicans and Democrats in Congress. What are the solutions proposed by Democrats and Republicans?

A. ______________________________

____

____

Q. The article states that the tuition at four-year public colleges rose by 202% during the past 22 years. What was the increase in the consumer price index during this period? If the trend continues, what will be the expected tuition and fees at public four-year colleges and private colleges by 2010?

A. ______________________________

____

____

Q. The maximum value of the Pell Grants awarded to poor students has risen 1% during the past three years. What percent of the total cost does the average Pell Grant cover at public four-year colleges?

A. ______________________________

____

____

Q. What does the article say the federal government can do to help make parents better shoppers and state legislators better managers of state colleges?

A. ______________________________

____

____

Q. What were the reasons given that poor students/families didn't receive help with costs when Congress passed the higher education tax credits in 1997?

A. ______________________________

____

____