SIGNATURE STORY

# DOLLARS and Sense

By Susan Besze Wallace

When Jim Tilley was in high school, his physicist dad sat him down for a battery of tests to see where his interests and intelligence might take him. Tilley later would follow in his father's footsteps, eventually earning a doctorate in physics from Harvard University.

But a flash of career clarity is not what he remembers about that teenage day.

"When it came time for the finance questions, I had no idea what a stock or a bond was," he says. "I didn't really get it until I was 25. So I always said I wanted my own kids to know about these things early."

That seed burrowed deep within Tilley and decades later has borne fruit across the United States. The Actuarial Foundation, of which Tilley was a founding trustee, created a high school curriculum to help kids get a grip on banking, financing and investing — before ignorance or costly choices take hold of them. More than 2,500 sets of that curriculum, called *Building Your Future,* were circulated last year — the rollout year — and 750 teachers are on a waiting list for funding to get their hands on it.

"The right time to teach a child about money management is the minute you have one in your arms and they go through a grocery store and say, 'I want that,'" says Tahira Hira, professor of personal finance and consumer economics at Iowa State University, and a member of the President's Advisory Council on Financial Literacy.

"But the reality is that doesn't happen. Choices, limits … our country has never been in the situation it's in today. We can be discouraged or we can use this as a turning point to raise consciousness among students and all adults. Thank goodness for people like those at The Actuarial Foundation for stepping up to help our children."

The Foundation has harnessed the energy of its unique constituency — a top-rated profession most Americans have trouble defining — to create a three-book series that demystifies banking, financing and investing for youth on the verge of financial independence.

The bridge between Tilley, a pioneering actuary who creates spreadsheets for his 80-year-old mother's line dancing classes, and a teenager, whose biggest concern might be which iPod to buy, might seem long and narrow. But the responsibility of controlling a dollar unites us all.

## Focused and Prudent

One actuary recalled an airplane conversation: "You're an actually? An actually what?"

"No, an act-u-ar-y."

"OK, but an actually what?"

An actuary is a business professional who analyzes the financial consequences of risk. They use mathematics, statistics and financial theory to study uncertain future events, especially those related to insurance and pension programs. Consistently listed among the top five professions in the United States by *Jobs Rated Almanac*, the actuarial profession is high in intellectual stimulation and pay, and relatively low in stress.

Becoming an actuary means passing a series of examinations and becoming an associate, then a fellow, of one of the five professional actuarial societies in the United States. In 1994, The Actuarial Foundation was fashioned out of a desire to channel the talents of these professionals for the greater good — namely education-related efforts.

"Someone told me once that the only reason a foundation should exist is to cure something," says Eileen Streu, the Foundation's executive director for 10 years. "Education is a basic cure. It opens doors, brings people out of poverty, protects people.

"A small foundation like ours won't usually make huge changes. But if we teach a teacher, we teach millions. We are part of a cure."

The Foundation manages a $600,000 budget. Its crisp website offers a singular delta logo — in money green — representing three focus areas: youth education, consumer education and research. When the economy took a bath in 2008, the Foundation's donations surprisingly increased.

"We strive to be focused and prudent," says Streu, one of four Foundation employees, based in Schaumburg, Ill. "That's who actuaries are, detailed and conscientious, very clear in thought and passionate volunteers."

The Foundation's education efforts try to hammer home that math can be fun and that it's always part of "real life." Actuaries pair with classroom teachers for mentoring. A free "Math Academy" series engages third- through eighth-grade students with titles such as *Let's Go to the Mall* (combinatorics), *Play Ball* (statistics) and *Dining Out* (percentages). A new geometry resource caters to middle school students by showing a stage crew using geometry to help the popular band "Geometrics" get ready for its concerts.

"A kid decides early on if he's good at math or not. Can you imagine the impact if they learn that math is exciting and fun, and that they are capable?" says Maureen Hager, recently retired superintendent of North Shore School District 112 in Highland Park, Ill., and the chair of the Foundation's committee for student achievement.

"We perceive ourselves as problem solvers or not. What if every child understood they could be a problem solver? Some may take more time, may take more strategies. But right now we have so many people who abdicate their financial responsibility, saying, 'I'm not a numbers person,'" Hager says.

"That's what the Foundation is about: It links individuals with a natural penchant for math to others to show them how to be capable — maybe not to the level of actuary, but to the level of a competent consumer."

Fred Sievert is the former president of New York Life Insurance Company and a recent Foundation board chairman. He is awash in board titles but calls The Actuarial Foundation among his most rewarding, given the volume of impact by this small operation.

"We had to ask, 'What's really the biggest need?'" Sievert

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says. "It was that people are not learning what they should about managing their own finances. So we kept asking, 'How many lives are we really impacting?' We weren't extending the visibility of the Foundation or the profession. We had to not be afraid of thinking really big."

The Actuarial Foundation's evolution offers several takeaways for other organizations, Sievert says. Occasionally spend a little more to go out on a limb. Don't be scared to use other professionals — in this case, non-actuaries — in appropriate ways. And cultivate a board whose members are engaged, not just taking up titles.

Sievert says the idea of producing and distributing a financial literacy curriculum got heads nodding everywhere he went.

"It's become obvious to me that we are unique. We're a comprehensive package while everyone else is doing pieces," Sievert says. "Secondly, we're a nonprofit. Many of the exhibitors at a financial literacy forum I attended admitted to me their stuff is corporate marketing material. Schools just won't take that. Ours is about the students."

Sievert, who taught math upon graduating college, was one of many who scrutinized the *Building Your Future* content. He also became a one-man lobbying force in Washington, D.C. — days after an address on the economy by President Obama — seeking those who could support the curriculum.

What The Actuarial Foundation didn't want was to create something wonderful that would flounder, unclaimed in a teachers' lounge. So Streu has been meeting with state education officials, who can't endorse but can get the word out about the availability of *Building Your Future* to teachers in their states.

Utah, Missouri and Tennessee require at least a one-semester course devoted to personal finance. Some other states require personal finance instruction incorporated into other subject matter. But more than half of the states have no requirement, though personal finance might be offered electively.

Dozens of notes arriving through the school year, such as this one from a Connecticut high school teacher, demonstrate the curriculum's immediate impact:

"The Family & Consumer Science Department usually receives only a small share of our school's textbook budget; consequently, I have never had a text to use when covering this material. In these difficult economic times, when money handling skills are so important, teaching high school students the basics of personal finance is essential to ensuring their financial success. The financial literacy materials you provided will be very helpful in achieving this goal."

## In the Driver's Seat

A key-dangling teenager sits behind the wheel wearing a smile and a thumbs-up on each *Building Your Future* cover. The photograph is sandwiched between close-ups of a checkbook and a stock board. The point: Being in a driver's seat — literally and financially — is a big responsibility.

*Building Your Future* first touched high school hands in 2009. The booklets are inviting and airy, yet jammed with essential principles, financial terms and practice scenarios. Blue-gray graphics are mature, but not intimidating. One teen described the book as "grown-up, but in a good way."

That was Tilley's hope when he wrote *Money Math* a decade ago. His sons were teens at the time and the guide he created was briefly used at one of their schools. The actuary's book was a bit too technical, Tilley's admirers gently say, but the mission was worth reinvigorating. So with the goal of having a bigger impact, and Tilley's book as a catalyst, The Actuarial Foundation retained DeHavill and Associates to write the curriculum, with actuaries along for each step.

"Mine was not a text to be put under glass — or maybe it should have been," says Tilley, former chief information officer for global financial advisor Morgan Stanley. "I'm very excited about what the Foundation did, and that the idea didn't die on the vine."


The banking book covers savings and checking accounts, credit cards and taxes. Financing includes home loans, auto loans, insurance and interest. And the investing book covers bonds, stocks, mutual funds, risk and diversification, and inflation. Definitions for terms like "overdraft protection," "co-pay" and "refinancing" march down the side of nearly every page.

From a car lease-vs.-buy comparison to figuring property tax to analyzing how long it will take to pay off a gaming system bought on credit, realistic practice scenarios abound. Advice does not.

### Building Your Future: Help in Hand

**To obtain a copy of the *Building Your Future* curriculum, visit www.actuarialfoundation.org. Teachers interested in receiving a donated classroom set should e-mail their name, school name and address to programs@actfnd.org. Books are $2.50 each or may be downloaded at no charge.**

"*Building Your Future* gives students the knowledge to make informed decisions," Streu says. "The more basics of personal finance they have, the better equipped they will be. They'll know to ask questions, and which questions."

Though *Building Your Future* can be downloaded at no charge, the student books are about 30 pages each, not including the teachers' guides, which makes copying costs prohibitive for many educators hindered by cutbacks. Most workbooks in schools have been donated — through grants to a "Quench the Thirst" campaign — by corporations, foundations and individual actuaries. A classroom set, mailed to a teacher, costs $250.

"I ran for the opportunity," says Liz Gallaro, an assistant principal and teacher at Clara Barton High School for Health Professions in Brooklyn, N.Y. "Many students are absorbing whatever is on TV that gets to them. That's their personal finance — the $300 sneakers they think they need to fit in. But we are teaching them how to save for a rainy day, how to budget.

"It's not the easiest subject to teach, not the most interesting to a lot of kids. Some texts are too over their heads, or too babied down. But this is excellent supplementary material, and in just the right language to understand."

Donors say the program is a slam-dunk for foundations that want to give to a project that meets a widespread need with immediate impact.

"We think we're on the cutting edge of a movement that will make the standard curriculum at some point," says New York Life Foundation President Chris Park, whose organization gave $40,000 to help develop the books and this year another $100,000 to help get them into teachers' hands.

The OdysseyRe Foundation made a $50,000 donation toward teacher requests for classroom sets in Connecticut and New York, including Clara Barton High. Belfatti, McGrath & Company gave a $25,000 grant toward classroom sets in Pennsylvania and Illinois, and Prudential, Anthem Blue Cross Blue Shield and RGA Reinsurance each gave $5,000 to help New Jersey, Indiana and Missouri teachers.

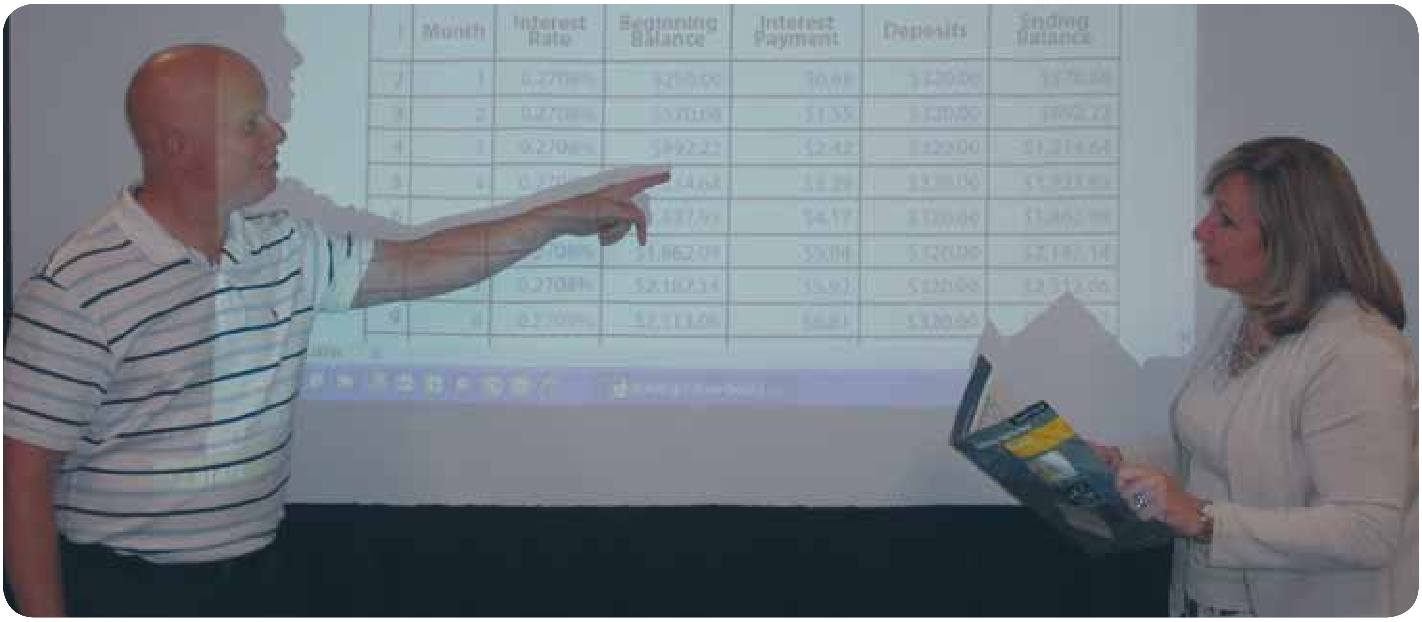
"We are inundated with requests from worthy organizations, and our primary focus is around health care issues," says Lance Chrisman, executive director of the Well Point Foundation, the philanthropic arm of Anthem Blue Cross Blue Shield's parent company. "But this program is getting real help into the hands of kids. It's a great ambush point to addess a need and make a difference."

## Did You Know?

Following are the type of eye-opening statistics that begin each chapter of The Actuarial Foundation's *Building Your Future* financial literacy curriculum for high school students:

- During the past 50 years, the personal savings rate in the United States has dropped from 8.5 percent in 1957 to 0.6 percent in 2007 — and it did not dip below 7 percent until 1993.
- According to the U.S. Bureau of Labor Statistics, the annual cost of car ownership and operation is 17 percent of the average household's expenditures, ranking second only to the cost of housing.
- Approximately 88 million American households are using credit cards, and the average credit card debt is more than $9,600 per household.
- Over time, the total return on stocks has exceeded that of any other class of asset. A dollar invested in stocks in 1802 would have grown to $8.8 million in 2003, in bonds to $16,064, in treasury bills to $4,575, and in gold to $19.75.
- As of March 2008, nearly 43 million U.S. citizens, approximately 14.3 percent of the nation's population, had no health insurance coverage.
- Three out of four taxpayers receive a refund after filing their annual tax returns.

*Source:* Building Your Future *financial literacy curriculum, 2009*




Chrisman, who remembers leaving college incredulous at the pocket full of credit cards issued to him, says The Actuarial Foundation is setting itself apart by offering "wonderful feedback" on where Well Point's $5,000 grant is actually being used in Indiana.

Park says she remembers watching a stock's fluctuations through a class in seventh grade.

"It didn't make me a stock chooser, but I understood the process, and that piece got through," she says. "We're really hoping the light goes on, maybe not in every single concept, but even if kids understand how credit works, and what happens if you screw up your credit rating, it's invaluable. It will affect their future."

## There are Limits

"These resource materials provide the knowledge and skills that will benefit them for a lifetime — whether it's at school, at home or at work … My students were highly impressed in knowing that these resource materials were donated by you through The Actuarial Foundation Giving Program … When they learned that there were actual people in the world that were generous enough to share with us, they were speechless."

When the e-mail blinked into Bob Conger's inbox in June, it brought tears to his eyes. Pemberton High School teacher Alice Drakapolous detailed what she liked about the curriculum, and also the astonishment from her students that it was handed to them for free.

"I was confident my contribution would be used," says Conger, a Maine actuary whose donation brought *Building Your Future* to Drakapolous's New Jersey classroom. "But I was just absolutely swept off my feet by the passion of the teacher.

"I became excited about this the first time I saw the materials. I was tremendously impressed with the clarity, the need, the touching on important issues without getting tangled in excessive issues. If a student takes it home, their parents will learn from it, too."

The home is the first frontier in teaching financial responsibility. But the financial literacy of high school students has fallen to its lowest level ever — 48.3 percent, according to a 2008 survey from the Jump$tart Coalition for Personal Financial Literacy. College students are carrying record-high credit card balances, according to Sallie Mae's *How Undergraduate Students Use Credit Cards* report, issued in April 2009. Half of college undergraduates had four or more credit cards in 2008, up from 43 percent in 2004 and just 32 percent in 2000.

"We all need to remember in personal finance that there's a whole lot of 'person' in it," Hira says. "It's very much led by our beliefs and value system. There are basic principles that are as true today as 6,000 years ago. You live within your means. You are responsible for yourself. You prepare for an emergency situation. You don't find yourself in other people's pockets.

"If young people can't see that, you haven't given them those glasses. But you aren't doomed. Show them there are limits. Personal finance is not rocket science; it's an ongoing sense of responsibility to yourself, and it's far, far reaching."

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**THE OCTOBER 2010 SIGNATURE STORY** features the Lisle, Ill.-based Morton Arboretum and its commitment to recognizing and rewarding loyal members. Through a variety of touchpoints, the Arboretum makes sure long-time members truly feel their value … and the effort culminates with an annual, sold-out event called Perennial Partners. The Morton Arboretum is a 501 (c)(3) organization with 250 full- and part-time staff, in addition to many seasonal staff and more than 900 volunteers. For more information, visit www.mortonarb.org.