Your 401(k)

New service aims to help Sandians manage 401(k) plans more effectively

By Renee Deger

About 9,000 current and former Sandia employees who participate in the Labs’ Savings and Income (401(k)) Plan got their first taste of professional investment management services recently. And for some, it was a bitter reminder that diverting a few salary percentage points into a couple of mutual funds and maybe a CD or two may not be a sufficient strategy for generating a comfy retirement income.

Sandia has joined the growing number of large corporations hiring professional investment advisers to lend employees a helping hand with their retirement planning. The company expanded its package of savings plan resources to include access to Financial On Nov. 18, Sandia’s Z machine performed an experiment to enhance scientific understanding of the properties of plutonium. The test, a success, was the first plutonium experiment at Z in four years.

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Materials for the just-completed experiment were... (Continued on page 5)

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That's that

Did you see where Volkswagen is coming out with a new New Beetle, due to hit a showroom near you in 2012? Orphag gave away an audience full of them—275, to be exact. An article in one of those glossy magazines for which Orphag has become famous. VW hasn't released any photos yet, but the company has a tantalizing teaser on its website. The New Beetle will be a thematic variation on the existing design, which itself is a post-modern interpretation of the classic VW Beetle, whose look dates from the 1930s. The new Beetle will make a fan. My first car—well, I didn't own it, but I drove it daily—I was a 1963 Beetle convertible with an engine from a 1959 Porsche 356. Used to deliver newspapers on a rural route between Washington, D.C., and Baltimore. M. Gosh it was fun, tooling along misty lanes at 3 in the morning, that Porsche engine growling, shooting rolled-up Baltimore Sun into those newspaper tubes to the kids. I used to see out in the country next to the mailbox at the end of the driveway. The challenge was to see how fast you could go and still get the paper in the tube. I got pretty good; the trick was all the way you flicked your wrist. Later on I owned a 1967 VW camper for a bunch of years; drove it back and forth across the country several times. I loved that car, but I have to admit that driving against the wind in Nebraska in high summer, topping out over long grades at 35 mph, was enough to reduce me (almost) to tears. Every 10,000 miles, like clockwork, I had to add that overwound, air-cooled, 1,100 cc engine. Leaked a lot about mechanics under that car. More than I wanted to know at the time. Subsequently, my wife and I, just married, put everything we owned into the back of a 1967 Beetle convertible and drove it around the country for several months before settling in Albuquerque. (Full disclosure—that's where we ran out of money.) We bought the car in Maine, where the salt and chemicals they put on the roads up there in the winter do a real number on cars. We were so excited to have an amazing vehicle. I remember the time we were taking it up to Cochiti Lake for a day trip: into the back of the car we loaded five kids (our two and three friends) and two kayaks. Oh, and we tied a two-person kayak to the roof. The New Beetles and the Jettas and the VW SUVs—the entire modern VW product line of cars designed for various market niches—have just never held the magic for me as the old Beetles and Microbuses. Maybe it's because I can't fix 'em if they break down. More likely it's because I associate those old beauties with youth and adventure (not that I've given up on the latter, mind you). But I'll tell you this: If Orphag offers me a new New Beetle, I'm not gonna say no.

See you next time.

— Bill Murphy, (505-845-0845, MS1065, wrmurphy@sandia.gov)

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That's that
Studies show that the average working American will have at least three and as many as seven careers in his or her lifetime. This means that Bldg. 968, now in its third career after 35 years of existence, is right on track.

On Nov. 22, Div. 8000 VP Rick Stulen and Center 8600 Director Glenn Kubiak led an official rededication ceremony for Bldg. 968. Known as the Chemical and Radiation Detection Laboratory (CRDL) for the past 14 years, the building is now called the Applied Biosciences Laboratory.

Rick recalled the groundbreaking for the first iteration of Bldg. 968, the Tritium Research Laboratory, in 1973 and the building’s grand opening in 1975. “It was a pretty spectacular first decade as we utilized the capability of this building to do unique research in hydrogen that considerably advanced Sandia’s reputation,” he said.

In the mid-90s, Rick said, it was time for a career change for the building. “Mim John realized there was an opportunity for research into radiation and chemical detection in this building,” he added. “Following the rededication to CRDL, we had another decade or so of very vibrant research into chemical detection, most notably with MicroChemLab.”

Turning to the present, Glenn posed the question of why rename a 35-year-old building. “Because it’s absolutely appropriate and acknowledges a transition that in many ways has already happened,” he said. “That transition is the growth of the importance of biology to Sandia’s missions.”

He noted that in 2004, activities falling under the realm of biology and biological sciences were about $23 million in scope. In the last fiscal year, that number had grown to $38 million.

“I think the name, Applied Biosciences Laboratory, captures the DNA of how Sandia does its work,” he added. “It’s about the growth of the importance of biology to Sandia’s missions.”

He acknowledged the contributions of Len Napoli (8900); former Div. 8000 VP Mim John; Duane Lindner (8120); Malin Young (8620); Grant Heffelfinger (1610); Terry Michalske (former director of Energy and Security Systems, now director of Savannah River National Laboratory); John Vitko (former director of Exploratory Systems and a former director of Biological and Chemical Countermeasures for the Department of Homeland Security); and Div. 6000 VP Jill Hruby.

“It was really the individual insights, vision, and perseverance of those folks and many others that brought us where we are today,” Glenn said. “I want everyone to walk away today with the idea that every single individual in this laboratory has the ability, through their vision and dedication, to change what this laboratory does for the nation. Each and every one of you has that power. Please bring that power together as a team so you can help write the next chapters of biology at Sandia.”
Supercomputing

(Continued from page 1)

ship, Jamie Van Randewyk (8966) served as Chair of SciNet, the ultra-high-performance network built to support the conference. Jamie was essentially responsible for positioning the convention venue as one of the most “connected” places on earth for a week). Jim Costa (8950) served as Deputy Technical Program Chair, and many other Sandians volunteered on a variety of SC10 committees.

For the first time in many years, Sandia maintained its own booth at SC10 and also had its traditional presence at the NNSA / ASC exhibit area.

“The Sandia booth featured demos by Will Atkins which does modeling and simulation of network architectures seen in large, high-end supercomputers. Success will help cyber security experts in combating malicious botnets. In photo below, Will Atkins (3555), and Kathy Robertson (5641). In addition, Ron Minnich (8961), and Mitch Williams (8961) were responsible for the VCSE demonstration. The following people played a vital role in the vision, design, and administration of the Sandia booth: Ben Cook (5641), David Cunningham (10650), Johanna Hartenberg (1512), Kathryn Haiselines (1932), Danielle Fortier (3555), and Kathy Robertson (6407). In addition, Ron Minnich (8961), and Mitch Williams (8961) were responsible for the MegaTux demonstration. Will Atkins (5628) was responsible for the VCSE demonstration.

en at the SC10 exhibit area. We recognized that a focused presence at SC10 could help publicize the Labs’ diverse portfolio of HPC research and growing application to technical challenges in cyber security, energy and other national security areas,” said Ben Cook (5641), manager of Sandia’s Cyber Enterprise Capabilities group. “In addition, we thought our own booth at SC10 would help engage the external HPC community in the broad range of research collaboration and career opportunities available at Sandia.

The Sandia booth, says Ben, was intended to complement the lab’s long-standing support and participation in the ASC program booth, an activity that remains a significant program focus for Sandia’s high-performance computing efforts.

The Sandia booth featured demos by Will Atkins (5628), who provided overviews of the Virtual Control System Environment (VCSE), and Ron Minnich (8961), who described the anti-botnet “Mega-Tux” work going on at SciNet, a large, high-end supercomputer. Will, along with other Sandians, including Tim Berg and Jimmie Wolf (9326), Keith Vanderwee (8951), Ron Oldfield (1423), Chrisma Jackson (5625), and Curtis Janssen (8953), volunteered their expertise and answered questions about Sandia’s high-performance computing and cyber security research efforts and capabilities.

Across the Exhibits Hall at the NNSA/ASC booth, a large team of Sandians from numerous ASC projects from across the lab showcased their recent technical accomplishments. Ann Gentile, Jim Brandt, and Jack-
son Mayo (all 8953), for example, ran its OVIS software program to interested onlookers and potential customers. OVIS is a tool for intelligent, scalable, real-time monitoring of large computational clusters.

“Supercomputing is a universal scientific instrument — one with the power to make the world a better place for all of us. You can really feel that potential when you’re at the conference.” — Barry Hess, SC10 general chair

SC10 success a team effort

Following are those Sandians who helped staff the NNSA / Advanced Simulation & Computing (ASC) exhibit at this year’s SC10 show in New Orleans. Andrea Almen-
daraz (9326), Bob Balance (9328), Richard Barrett (1422), Devon Batesman (9318), Erik Boman (1416), Jim Brandt (8953), Sophia Cornel (9328), Matthew Curry (1423), Denise Etherly (9326), Ann Gentile (8953), Russ Goebel (9326), John Greenfield (9326), Mike Heroux (1416), Mark Hoemmen (1416), Ed Hoffman (8954), Justine (Johannes) (1200), Kevin Kelsay (8953), Christopher Lamb (9532), Jim Loomis (1040), Paul Lin (140), Ken Nichols (9326), John Noe (9328), Dino Pavlikos (9326), Kevin Potter (6443), Kyle Peterson (1644), Julia Phillips (1200), Sandi Portlock (1400), Mahesh Rajan (9326), David Rogers (1424), Kathy Shew (9326), Joel Stevenson (9326), Narae Taerat (8953), Regina Valenzuela (10694), Ross Volzer (9326), Lee Ward (1423), Michael Wolf (1416), Matthew Wong (8953), and John Ziegler (9300). The following people played a vital role in the vision, design, and administration of the Sandia booths: Ben Cook (5641), David Cunningham (10650), Johanna Hartenberg (1512), Kathryn Haiselines (1932), Danielle Fortier (3555), and Kathy Robertson (6407). In addition, Ron Min-

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“Supercomputing is a universal scientific instrument — one with the power to make the world a better place for all of us. You can really feel that potential when you’re at the conference.” — Barry Hess, SC10 general chair

Graph500 rankings released at SC10 conference

Nine supercomputers have been tested, validated, and ranked by the new “Graph500” challenge, introduced by an international team led by Sandia researchers. The list of submitters and the order of their finish was released Nov. 17 at the supercomputing conference SC10 in New Orleans. The machines were tested for their ability to solve complex problems involving random-appearing graphs, rather than for their speed in solving a basic numerical problem, today’s popular method for ranking top systems.

“Some, whose supercomputers placed very highly on simpler tests like the Linpack, also tested them on the Graph500, but decided not to submit results because their machines would shine much less brightly,” says Richard Murphy (1422), a lead researcher in creating and maintaining the test.

Richard developed the Graph500 Challenge with researchers at the Georgia Institute of Technology, University of Illinois at Urbana-Champaign, and Indiana University, among others.

Complex problems involving huge numbers of related data points are found in the medical world, where large numbers of medical entries must be correlated; in the analysis of social networks with their huge numbers of electronically related participants; or in international security, where huge numbers of contain-
ers on ships navigating the world and their ports of call must be tracked.

Such problems are solved by creating large, complex graphs with vertices that represent the data points — say, people on Facebook — and edges that represent relations between the data points — say, friends on Facebook. These problems stress the ability of computing systems to store and communicate large amounts of data in irregular, fast-changing communication patterns, rather than

the ability to perform many arithmetic operations. The Graph500 benchmarks are indicative of the ability of supercomputers to handle such complex problems

Given the Graph500 benchmarks present problems in different input sizes. These are described as huge, large, medium, small, mini, and toy. No machine proved capa-
ble of handling problems in the huge or large categories. “I consider that a success,” says Richard. “We posed a really hard challenge and I think people are going to have to work to do ‘large’ or ‘huge’ problems in the available time.” More memory, he says, might help. The abbreviations “GE/s” and “ME/s” represented in the list below describe each machine’s capabilities in giga-
edges per second and mega-edges per second — a billion and million edges traversed in a second, respectively. Competitors were ranked first by the size of the problem attempted and then by edges per second. The rankings were:

1) Argonne National Laboratory – Intrepid
   6.6 GE/s on scale 36 (Medium)

2) National Energy Research Scientific Computing Center – Franklin
   5.22 GE/s on Scale 32 (Small)

3) Pacific Northwest National Laboratory – cougarxmt
   1.17 GE/s on Scale 29 (Mini)

4) San Diego National Laboratories – graphstorm
   1.22 GE/s on Scale 29 (Mini)

5) Intel Corporation – Enzoox
   3.55 ME/s on Scale 29 (Mini)

6) Oak Ridge National Laboratory – knl
   50.57 ME/s on Scale 29 (Mini)

7) San Diego National Laboratories – Red Sky
   477.5 ME/s on Scale 28 (Toys++)

8) Oak Ridge National Laboratory – Jaguar
   800 ME/s on Scale 27 (Toys)

9) Intel Corporation – Enzoox
   615.8 ME/s on Scale 26 (Toys)
The upside for 401(k) participants to take advantage of the new service is significant, according to a joint study by Financial Engines and Hewitt Associates, a leading human resources consultant. A study released in January found that individuals who get professional advisory services compared to their goals. The answer, she adds, is that most definitely privacy has been preserved. Sandia has, in effect, chosen to enlarge the basket of services with the addition of Financial Engines. Financial Engines has appropriate security policies in place designed to protect personal information, and it has assumed a fiduciary role in regard to its advice services, Rebecca says.

The core service that Sandia has purchased for its 401(k) participants includes access to Financial Engines’ online financial assessment and planning software tools. These tools are available directly from the Fidelity NetBenefits page that participants currently use to access and manage their 401(k) accounts. (Look for the Financial Engines link and logo under “Investment Help” on the NetBenefits home page.) It’s still up to each individual to act on the advice that Financial Engines provides.

There is, however, an additional, elevated service level that plan participants may elect to buy directly from Financial Engines that turns over the management of their retirement funds to Financial Engines professionals. The fee for this is based on a sliding scale depending on the total assets in the account that is to be managed. The new service was launched with an introductory special for professional account management. Plan participants who opt for professional account management service by Dec. 17 do not have to pay for the service if they canceled within 90 days. However, plan participants may start or stop this account management service at any time.

Financial Engines can create a Retirement Plan that considers all of your investments. The letters were likely received by an engaged audience. Mark says that according to Fidelity Investments, on average more Sandia employees participate in the company’s 401(k) program compared to comparably sized companies, they save at higher rates, and they have amassed larger nest eggs. The Debate

Privacy concerns respected, protected

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Privacy concerns respected, protected

However, the arrival of the letters raised a number of questions. One of the most commonly asked questions among Sandia 401(k) savers is whether privacy laws have been observed since Financial Engines has gained access to personal financial information, Rebecca Spires, also on the retirement programs staff, (10520) says. The answer, she adds, is that most definitely privacy has been preserved. Sandia has, in effect, chosen to enlarge the basket of services with the addition of Financial Engines. Financial Engines has appropriate security policies in place designed to protect personal information, and it has assumed a fiduciary role in regard to its advice services, Rebecca says.

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Changes coming to how Labs retirees, vested former employees can work on contract for Sandia

By Karyn Scott

Two procedures related to the contract relationship options between Sandia and retirees and former vested employees have been updated as part of continuing efforts to align the Labs’ corporate procedures with requirements and best practice.

These changes highlight the importance for leaders to undertake appropriate/effective succession planning as the Labs responds to legal authority that has recently become clearer concerning the pension risks associated with employers using the services of retirees. These changes to Sandia procedures will become effective Jan. 1, 2011, and will impact such things as the number of hours per year that retirees and vested former employees can work, as well as the types of services that these individuals can provide.

Additionally, these changes will apply to all types of arrangements and contracts for services, whether the work is on-site or off-site.

At right is a comparison of the current procedure versus the new procedure for how Sandia retirees and vested former employees can work on contract for Sandia.

For additional information, visit the Change@Sandia website, or call Kim Goodrich in Human Resources (505-844-7150), Sharon Ortiz in Human Resources (505-845-0325), Alfred Romero in Supply Chain Management (505-844-3107), or Amber Romero in Supply Chain Management (505-284-0634).
Bugs and lights popular as students get new shoes

By Iris Aboytes • Photos by Randy Montoya

Blonde curls framed his happy face as his brown eyes peered through. Jordan was very specific. He would like a pair of Air Jordans. Jordan is a 9-year-old student from Armijo Elementary School who took part in Sandia’s Shoes for Kids program recently.

The program was born more than 54 years ago when Sandia scientists decided to buy shoes for needy school children instead of exchanging Christmas cards and gifts. Albuquerque Public Schools officials identify the needy children. Last year, 500 school children received new shoes.

Jordan says he loves basketball and feels sure that a pair of Air Jordans will help him make more baskets. His 6-year-old brother, Kahleel, wants to be a basketball player, too. He says he is getting a new pair of shoes because he has been a good kid. When asked what entails being a good kid, he replies, “I listen and follow the rules. I do my homework. Besides practicing baskets and dribbling I have to eat fruits and vegetables. My dad says I also have to drink eight glasses of water a day. I want to be like Kobe Bryant. I am also already running track. It is called training.”

Angel does not want sneakers. She wants high heels. “High heels?” I ask. “Don’t you want to get a pair of shoes you can jump and run in?” She looks at me with a “duh” look on her face. She finally settles for a pair of patent leather high-heel boots.

Six-year-old John wants a pair of shoes with bugs. “With bugs?” I ask. He is referring to a pair of shoes that has bugs on the box.

Five-year-old Heather wants the shoes that glow. “They are fun,” she says. “When I walk they light up. They are good shoes.”

Nine-year-old Antonio needs to get shoes because his are ripping. Eight-year-old Kenneth says he has to get new shoes because his are falling apart and he wants to make sure the snow does not get in. “See the little strings,” he says.

One by one, each child is fitted with a pair of shoes. The boxes are carried to the register to be paid for by the generosity of Sandians. The boxes contain not just the pair of shoes, but the excitement and anticipation held in the heart of each child.

Last year, Sandians contributed more than $13,000 to the program. Shoes are fitted on Tuesday and Thursday each week until February, except for the holiday break. Community Involvement Dept. 3652 coordinates the fittings. If you would like more information about the program or would like to participate in the shoe fittings, contact Patty Zamora at 844-2146. Contributions are received by the Sandia National Laboratories Credit Union to Account # 223180, 90-01 last name=shoes.