**Money matters.** Fundamentals are just as important in planning a bright financial future as in designing a successful experiment.

EDITORIAL FEATURE

# Young Scientists Need Firm Plan To Make Up for a Late Start

## After what may seem like endless on-the-job training, scientists need to move quickly to map out a sound, long-term financial strategy

**SCIENTISTS OFTEN BEGIN THEIR CAREERS** at a financial disadvantage. While their counterparts in other fields are contributing to 401(k) retirement plans, academics are still scraping by on graduate fellowships or assistantships that lead some to wonder when they took a vow of poverty.

They spend 6 years or more in graduate school, then several more years doing postdoc work. By the time they start earning a decent salary, most scientists are in their early 30s; some are in their mid-30s, or older. And many—especially those with clinical degrees—carry more education debt than do their contemporaries.

Yet it's not uncommon for scientists to do quite well financially. Many scientists, in academia and in industry, end their professional years financially comfortable—even wealthy. All it takes is a plan. But with the obligations of an academic career—lesson plans, research and writing, faculty committee work—who has time for financial planning? You do. A financial plan doesn't have to be complicated. A few relatively simple steps, followed consistently, will greatly improve your chances of achieving financial security at an earlier age than you thought possible. The key is to focus on the steps that generate the greatest financial benefit with the smallest time commitment.

Financial responsibility doesn't require a monastic existence or—once you're out of graduate school at least—a vow of poverty. It doesn't mean that you can't have some of the good things in life—although it does mean you can't have all of them right away. If you have been waiting patiently for a new car, or better coffee, go ahead and enjoy them. Just don't develop a lot of expensive habits or indulge in them too often. Being underpaid for so many years can even work to your advantage: Years of tight spending have probably taught you a few things about living cheaply—but well. You probably don't even have time for too many indulgences, anyway.

Becoming more financially aware can help you understand how much, and how often, you can afford to indulge yourself now without adding unwanted years to your career or significantly harming your financial future.

So let's get started. As soon as possible, you should:

- begin a new savings program,
- make plans to buy a house,
- pay down your consumer debt if you have any, and
- learn about and use your institution's employee-benefit programs.

The transition from student to professional is a very busy time for a scientist. But the effort you put into financial planning early in your career will save you untold hours—and dollars—in years to come.

### The key: Save, save, save

The single most important financial skill at this stage of your career is the ability to save money out of every paycheck. Your savings program is the foundation for achieving several financial goals, such as accumulating an emergency fund, saving a down payment for a home, contributing to retirement savings plans, and paying off consumer debt.




Very likely, your first true professional position will bring the biggest percentage pay raise you will ever get. "We're talking about a 50% increase," says financial planner Karen Folk of Folk Financial Planning in Urbana, Illinois. That substantial raise makes it relatively easy to save. Many people find that the biggest impediment to saving isn't the amount of money they earn—it's how much they're used to spending. After a postdoc, you're used to living on a smaller income. All you have to do is keep doing what you're used to doing with a few modest and occasional indulgences added to your lifestyle. "If you start from the get-go, you will never miss that money," says financial planner Rob Reed of Reed Financial Planning in Columbus, Ohio. So start saving now while you're still accustomed to having far less.





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The goal of saving money usually brings up the idea of budgeting. But success at budgeting eludes many who try it. And of those who succeed, few enjoy it.

Fortunately, there's a simple alternative that works better for most people. Just "pay yourself first." Simply decide how much you want to save each pay period. Instead of leaving that money in your checking account where it's easy to spend, put it aside in a separate savings account where it's a little harder to get to. Then see whether you can make it through the pay period on the money that's left over. If you succeed, try saving a little more the next pay period. Experiment until you find how much you can save regularly. Then use direct deposit or a scheduled transfer to your saving account to make the process automatic. You're more likely to succeed when the money is saved without your intervention.

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**Cash needs**

Now that you know how to save, what will you be saving for? The first thing to do is to build up a cash reserve (so you don't need to use credit cards) and an emergency fund for unforeseen expenses. These funds should be kept in Federal Deposit Insurance Corporation–insured accounts in the bank. Your goal should ultimately be to maintain a balance of ready cash plus emergency funds of about 30% of your annual income. After you've bought a home, some of this can eventually be held in the money-market option of tax-deferred accounts such as a 403(b) plan or an Individual Retirement Account.

**Buying a home**

As you go from being a student to being a professional, consider how long you will be in the community. "If you're in one place for 5 or 6 years, even if you don't make tenure, chances are you'll benefit from home ownership," says Folk.

If you're going to buy a house, you'll need a down payment. At least part of your cash savings can double as your down-payment fund.

Be sure to ask your institution's Human Resources department whether they provide help for homebuyers. "In bigger cities," says Reed, "some schools pay a housing subsidy." Others offer incentives for faculty members to buy homes near the university. The school may finance the purchase or sell homes that it owns at a special rate.

Especially in expensive big cities, many universities provide subsidized housing rentals for faculty members—and sometimes for postdocs and students. Owning a home is usually a good idea, but in an expensive community where you have access to subsidized rentals, this option might make sense.

**Retirement savings**

Your employer may offer a traditional pension; those offered by public universities are often quite strong. Every $1000 of monthly pension

## Summer Salary and Other Windfalls

One unique aspect of the life of the academic scientist is summer salary. Although many scientists, especially at research universities, may come to expect at least 11 months of salary each year, many others think of this as "extra money" beyond their base pay for a 9-month academic year.

Like most financial windfalls, such as an income tax refund or an inheritance, summer salary isn't difficult to spend. Some families plan to pay expected large expenses—such as property taxes, for example—from this supplemental income. Instead, you should be setting aside money for these big bills out of every paycheck.

If you are repaying consumer debt or education loans, it can be tempting to put any extra money against that debt. If it will pay off the bill entirely, it's often worth it. But some advisers recommend that a windfall be split so that half is put into savings and half paid against your consumer debt; this can create a feeling of progress on two fronts. It's important to remember that emotions are a big part of financial planning; you're more likely to be successful if you can manage some enthusiasm.

If you have no consumer debt to repay, you might consider contributing to a Roth IRA, in which the money can grow tax-free. It's important to make sure you meet all the eligibility requirements, so check with your tax adviser. Married couples who file income taxes separately cannot typically contribute to a Roth IRA.

Of course, you could contribute at least some of your summer salary into your retirement savings plan. In fact, you can probably manage to deposit all manner of windfalls into your 403(b) or 457 plan. Here's how. Suppose you have an income tax refund of $2000 that you'd like to put into your 403(b) plan. Of course, you can typically make deposits to that plan only through payroll deduction. If you're not yet contributing the maximum to the plan, simply increase your contributions by, say, $250 per month. This will reduce your take-home pay (by something less than $250 because your increased contribution reduces your income tax withholding). You simply make up the difference in take-home pay from the $2000 tax refund. When the tax refund is gone, you reset your 403(b) contributions to the previous level. This gets the amount of the refund into your retirement plan (albeit indirectly), leaves you the same amount to spend every month, and coincidentally reduces your income tax liability.

If you are already contributing the maximum to your 403(b) plan, your institution may allow you to open a 457 plan account and contribute to that as well. Under current tax law, it's permissible to contribute up to $15,000 per year to a 403(b) plan, and an additional $15,000 to a 457 plan, even at the same employer.

Much of financial planning is like this. It's not string theory. **–K.R.**



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## Making the Most of a Good Thing

Erik S. Barton is about to make the leap from postdoctoral fellow at Washington University School of Medicine in St. Louis, Missouri, to a faculty position at Purdue University in West Lafayette, Indiana. Barton's 440-kilometer relocation will be accompanied by scientific independence and many other personal and professional changes—not the least of which is a $38,000 pay increase. His new base pay—$65,000 for the academic year—will be supplemented by an additional 20% ($13,000) for a summer appointment. This roughly doubles the pretax income he currently receives as a postdoc.

There will be plenty of opportunities to spend that money. Barton's wife Carrie, a schoolteacher, plans to stay home with the children for a couple of more years. There's a house to buy and new cars. There's new clothing for faculty parties. Their three children, aged 6 months to 5 years, will need to go to college someday. And Barton has already started thinking about retirement.

So what approach should Erik and Carrie take if they want to do the fiscally responsible thing? They should:

**Find out how much they can save comfortably.** The substantial pay raise is an opportunity to save aggressively.

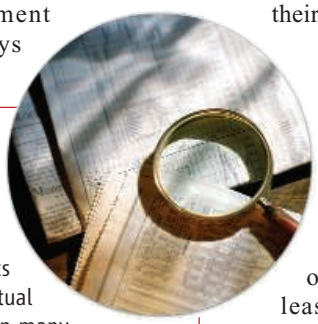
**A full house.** A faculty position at Purdue University means new financial opportunities—and challenges—for Erik Barton and his wife Carrie as they raise (*from left*) Zachary, Noah, and Rachel.

income is equivalent, by some estimates, to $170,000 to $240,000 in investments.

Pensions are important, but you'll benefit from the flexibility of having some self-directed savings as well. You'll probably have access to plans that are similar to 401(k) plans: The 403(b) plan is the educational/nonprofit variety, and the 457 plan is a common public-sector equivalent. At a public institution, you may have access to both. One of the greatest advantages is that once you set up your contributions, they happen automatically with every paycheck. It's especially helpful if your employer matches some of your retirement savings with contributions into your account.

When deciding how much to save, Reed recommends starting with 10% of your gross pay. "What I do is say, 'Let's split it': 5% for establishing a cash position—first for saving for a house, later for emergency funds—and 5% for retirement." Once your home has been purchased and ready cash and emergency funds have been accumulated, it's time to concentrate more of your savings on the retirement account. Actually, says Reed, "I want them to be very aggressive savers," to provide greater flexibility later in their careers. Without substantial retirement savings, many scientists have no option other than to continue working in the field they first became interested in—an interest that does not always last a lifetime.

Folk encourages her clients who teach at public universities to save 15% of their pay. They're typically required to contribute 8% into the state's traditional pension plan; she has them save another 7% on their own.



**Debt repayment**

It's important to pay down consumer debt such as credit cards or personal loans. If you have several cards or consumer loans, concentrate on the one with the highest interest rate. Paying this off first means you will spend the least on interest charges over time. But don't rush to pay down that 30-year fixed-rate mortgage, or those low-rate tax-advantaged student loans. Depending on how you've got your money invested, you may be better off putting extra money into your retirement accounts than paying down these debts.

## So What Should You Invest In?

Investing is a complex business, and most professionals in other fields have no desire to become investment experts. But you don't need to become an investment guru to learn what you need to know. Pick up a book on the basics of investing. Then, when you're ready for a long-term commitment to mutual funds that own stocks, consider an inexpensive index fund that invests in many different types of large companies. Later, as a more experienced investor, you can add more variety to your portfolio. Remember, investing is the icing on the cake in your financial life, so don't get too hung up on it. Just like eating only the icing, ignoring the rest of your finances to concentrate on investing can leave you feeling a little queasy. **–K.R.**





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The savings rate should be at least 10% of gross pay, but more is better. Because they don't have some of the financial obligations of other postdocs—family members paid off three-fourths of their education loans as a wedding present 13 years ago; the rest they paid off themselves while still in graduate school—they should be able to put 15% of their income into permanent savings, and possibly more. The more they save now, the less they'll have to save later.

**Build up a cash position.** Their basic liquidity should be about $8000. They should be able to access this money in a matter of hours. Another $16,000 should be put into certificates of deposit or—if it can be withdrawn in a true emergency—into the cash option of a 403(b) account (such as TIAA-CREF) or an Individual Retirement Account.

**Keep out of consumer debt.** The only loan in the Bartons' lives is a mortgage on their home in St. Louis. They're planning to buy a home in Indiana. They should use a 30-year fixed-rate mortgage and shouldn't rush to pay it off. But consumer debt is another story. They keep their credit cards paid off every month, even on Erik's postdoc income. Any family with consumer debt should make paying it off a high priority.

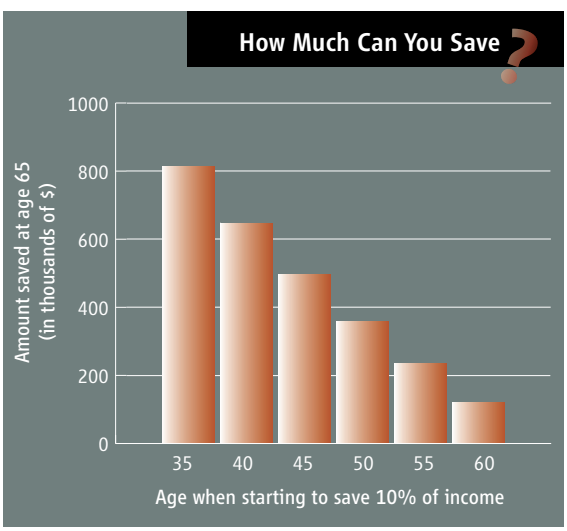
**Don't overbuy the house.** The St. Louis housing market has been good to the Bartons, and the temptation will be strong to buy as much house as they can in Indiana, taking out the biggest loan they can qualify for. They shouldn't. The more the house is worth, the more it will cost to maintain. They should put 20% down to avoid having to pay for private mortgage insurance. They could make a larger down payment to lower their monthly payments, but if they feel confident about long-term investing in the equity markets (preferably using mutual funds that own stocks), the loan could cost less than their investments would give them over 30 years.

**Save for retirement first, then for college.** The Bartons were able to get loans for college, and their children will probably be able to as well. But no one's going to give them a loan to retire. The Bartons should avoid saving money in custodial accounts with the children's names, because this often has negative effects on college financial aid. Purdue will put about $11,000 into Erik's TIAA-CREF retirement account in his first year. As his pay increases, an amount equal to 15% of his raises will go into his account as well. It's not a traditional pension with a defined payout at retirement, but it is portable if Erik should eventually move to another institution. He also has great opportunities to save: Purdue allows faculty members to put up to $15,000 into each of two retirement savings plans: a 403(b) and a 457 plan.

**Learn a little about investing.** Because the Bartons are relatively young, the money they save and invest now will yield big returns, even in more conservative accounts or investments. This is a good time to read up about investing basics, so they understand the risks and benefits of their investment choices (see sidebar, p. 1456).

**Don't forget those other employee benefits.** Purdue offers a variety of employee benefits, including a tax-advantaged flexible spending account for out-of-pocket medical and child-care expenses. Purdue automatically enrolls tenure-track faculty in its long-term disability plan, paying half the cost. The other half is paid by the faculty member, but at about $25 per month, it's a good deal for Barton.

**Keep up good habits, but remember to have a little fun.** Because they've made some good decisions and had some good luck, the Bartons can spend a bit more than they have been without sacrificing their common financial future. **–K.R.**




**Start early.** Compound interest can pay off handsomely for a 35-year-old scientist earning $60,000 and getting 4% annual raises, assuming a 6% rate of return.

### Get familiar with your institution's employee benefits

You can still find valuable employee benefits at many institutions. Insurance programs, for instance, are often competitively priced.

Another example is disability insurance, which pays you a portion of your regular income if you can't go to work because you're sick or hurt. You may qualify for public disability benefits, but it's not enough, typically, to replace what you would earn if you could keep working. It's often difficult to get individual disability policies, especially for public-sector employees, so if you have the chance to buy disability coverage through your employer, you should probably take it.

Term life insurance is one of the most common employee benefits. You can easily compare costs with policies available from retail providers, using a life insurance quotation Web site, such as www.term4sale.com or www.insurance.com. Be sure to consider the insurer's financial strength; the insurance provider should have information on the company's ratings from a variety of companies that evaluate the reliability of insurers.

Your institution may also offer medical and child-care spending accounts, which allow you to use pretax dollars to pay for certain out-of-pocket expenses.

### Planning for the long run

The beginning of your career, when your financial life is relatively simple, may be the best time to consult a financial adviser. Spending just a few hours with a planner will help you set up your savings to be automatic and to focus on near-term decisions that will create the greatest long-term benefit. You probably need basic guidance at this stage, when doing things right will reduce the amount of professional help you're likely to need in the future.

Don't assume that your 403(b) plan representative can help you. They may be trained in sales, not financial planning, and may not know, fording Consumers Union, the nonprofit publisher of Consumer Reports—recommend a "fee-only" financial adviser: one who takes no commissions and is paid directly by the client. The National Association of Personal Financial Advisors can help you find a fee-only adviser, at www.NAPFA.org or 847-483-5400.

As you make the transition from student to professional, your best financial moves are saving money, buying a home, paying down consumer debt, and getting the most out of your employee benefits. At this stage, it's not about finding the best investments.

**–KEN ROBINSON**

Ken Robinson is a writer and professional speaker on personal finance and the author of *Financial Tips for a Better Life* and *Don't Make a Budget—Why It's So Hard to Save Money and What to Do About It* (scheduled for publication in 2007).