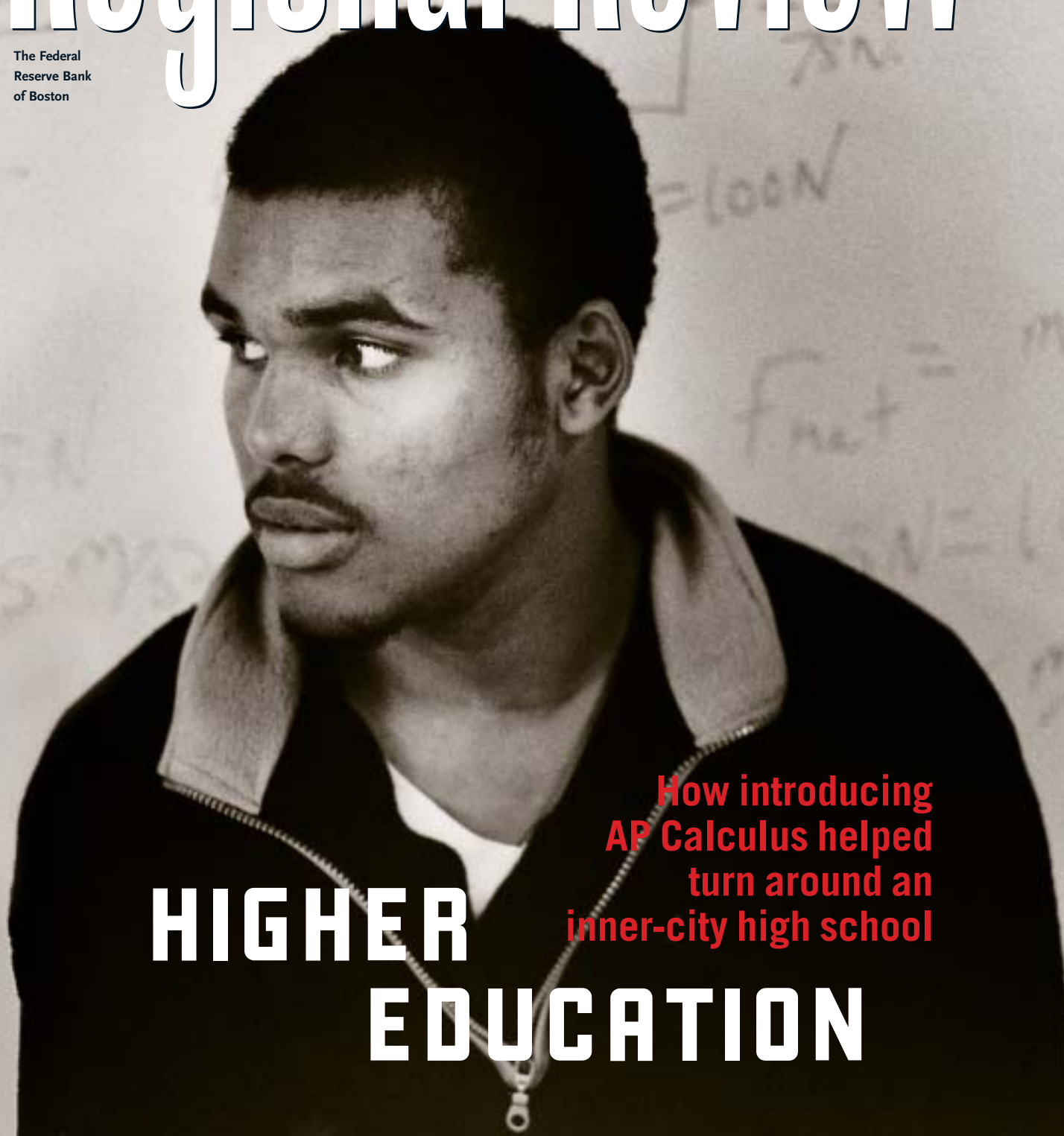


Alice Rivlin on three dilemmas of modern capitalism

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Regional Review

The Federal
Reserve Bank
of Boston



How introducing
AP Calculus helped
turn around an
inner-city high school

HIGHER EDUCATION

this issue

AFTER THE LONGEST economic expansion in U.S. history, the prospects for the economy are once again a focus of public concern. However, there is much we can learn from past experience.

As the collapse of the Soviet Union made clear, the future lies with market economies, notes the distinguished economist Alice M. Rivlin in **Challenges of Modern Capitalism**. But achieving this potential, she argues, will depend on how we handle three key economic dilemmas: reducing income inequality, strengthening our corporate culture, and improving public services. But, finding solutions to these problems is neither easy nor obvious, as each requires the continuous balancing of important and competing objectives.



Illustrating one such dilemma, Rachel Deyette Werkema chronicles an urban school's struggle to improve in **A Calculated Risk**. When Boston's Jeremiah E. Burke High School lost its accreditation in 1995, extra resources and an exceptional effort by staff resulted in an impressive turnaround, culminating in the school's first-ever AP Calculus class. Yet, today the Burke faces a challenge in maintaining the progress it worked so hard to achieve, as attention and resources get diverted to the next problem.

Past experience can even influence our most personal choices, such as when and whom we marry. In **Chances Aren't**, Carrie Conaway demonstrates that marriage is far more predictable than tales of random encounters would suggest. Economic factors cause marriage rates to fluctuate over time, and the legacy of social institutions and attitudes tends to encourage us to meet and marry people like ourselves. Even as society changes and we find new ways to meet our mates, our choices remain beholden to ever-present social and economic forces.

CATHY E. MINEHAN

PRESIDENT, FEDERAL RESERVE BANK OF BOSTON



PHOTOGRAPH BY MARY KOCOL

Baseball fans in Brockton, Massachusetts, can now root for the home team. p. 30

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observations

Bulls, bears, and ballclubs

THE BOSTON CELTICS pro basketball team has returned around 20 percent to its investors each year since becoming the first publicly traded professional sports franchise in 1986—until this September, when it was sold to a private owner. Why don't more teams go public, and why don't public teams tend to last?

Other teams have also sold public stock, with varying degrees of success. Football's Green Bay Packers have sold shares four times since the 1920s, and sales have exceeded expectations each time, even though shareholders receive no dividends and can only sell the stock back to the team for 2.5 cents per share. Baseball's Cleveland Indians offered stock in June 1998. Though the stock immediately tanked, initial investors realized a return of 48 percent when the team was sold in November 1999. Hockey's Florida Panthers were publicly owned until June 2001, and did well only after acquiring hotels and resorts. *Business Week* called the team "a drag on earnings," and shares in Boca Resorts Inc., the team's former owner, rose after the team was sold.

Team owners have pitched their IPOs as a way of getting the community involved, ensuring that franchises do not move to other cities against the wishes of their fans. The funds raised in public stock offerings can help pay for high-salaried star players or improvements to aging stadiums, or even for franchises themselves (especially in the minor leagues, where frequently no single buyer can afford to purchase the entire team).

Sale prices for franchises have always increased, providing investors with a good return if the franchise is sold. But sales are rare, and otherwise team stock performs poorly; sports franchises offer little potential for growth, and gate receipts and local television revenue are too reliant upon success on the field. Also, shareholders are usually limited in their decision-making involvement since few teams are majority publicly owned. (Only 48

percent of Celtics stock was publicly held, for example.) Short-term investors seem to buy stock in public franchises for the same reason the wealthy buy whole teams—owning a team is a status symbol.

Investors can make money on sports franchises if they are willing to hold on to the team until it is sold or adds other profitable assets. But fans looking to be more involved with

their favorite team might do better to buy season tickets. For about the same cost, they'd at least get to attend the games.

—Matt Rutledge



Racing for gold

Marathon training typically entails four months of preparation, running an average of 25 miles per week and up to 40 miles in a given week. Sound tiring? Many people make an additional commitment to dedicate their run to a good cause, raising thousands of dollars for charity.

Nonprofit fundraisers linked with endurance athletic events have taken off running over the past decade. In 2002, 6.5 percent of Boston's marathoners represented a charity, raising \$6.8 million—a \$1 million increase from 2001. Yet long before runners compete in the race, the organizations must compete for a position. Each year, the Boston Marathon charity program, at the starting line since the mid-1990s, handpicks 15 nonprofit organizations from about 60 applicants. The nonprofits that secure race numbers usually require marathoners to raise a minimum of \$2,000, using personal credit card information to bind the agreement.

Although \$2,000 might seem like a daunting obligation, spots are in high demand since the alternative way to earn an official Boston number is to complete a qualifying marathon at a 10-minute mile pace. Plus, charity runners often reap benefits beyond the numbers pinned to their shirts. The Dana-Farber Marathon Challenge (DFMC), subsidizing innovative cancer research, provides a training program supervised by former Boston Marathon champion Jack Fultz, weekly group

runs, access to local facilities, and an indoor meeting area at the start and finish lines. These perks may explain why DFMC receives twice as many applications as its 300-plus allocated spaces. Not to ignore the cause: the average Dana-Farber runner raises twice the minimum, reflecting the value they place on cancer research and this experience.

For the runners, the marathon is about more than just raising money. The lengthy duration of a city marathon allows for

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Observations

CONTINUED FROM PREVIOUS PAGE

numerous interactions with enthusiastic crowds, creating a forum for promoting the importance of their cause. For athletes who have suffered a personal loss, the marathon is an opportunity to convert emotional anguish into a physically challenging fight against a disease. The long hours of team training and race day fans form a social network of invaluable support to DFMC's members. Both fundraising and running a marathon are challenging tasks, yet the two complement each other such that the mission as a whole is more than the sum of its parts.

—Anne van Grondelle

► FROM READERS

Back to college

Thank you for the article by Claudia Goldin and Lawrence Katz on "The Shaping of Higher Education in the United States and New England" (Q4 2001). The data on public spending and enrollments by state were particularly helpful.

In citing the establishment of private colleges in New England, however, Goldin and Katz did not mention that many were formed by religious groups: Harvard by Congregationalists, Boston University by Methodists, Tufts by Universalists, Holy Cross and Boston College by Jesuits, and Northeastern University and Springfield College from the YMCA movement. In addition, Harvard accepted state appropriations for almost two centuries and was an early prototype of a quasi-public college, designed to provide preachers and teachers for church and state. Economists rarely look at the influence of religion, but even today 40 percent of college freshmen consider "integrating spirituality into my life" as "essential" or "very important," according to a survey undertaken by UCLA and the American Council on Education.

As to whether a philanthropist will ever again have his or her name on a first-rate private college: The Franklin W. Olin College of Engineering, in Needham, Massachusetts, was established after a 1997 gift of \$300 million from the foundation created by F.W. Olin, of Olin Industries. It was designed to be both first rate and free. Perhaps it's still early to rule out either Bill Gates or Ted Turner!

Joe Cronin

President of Bentley College, 1991–97

Secretary of Education,

Commonwealth of Massachusetts, 1971–75

perspective



Manufacturers should be liable when computer bugs leave consumers in the lurch

By David Banisar

IN EARLY JUNE, Microsoft announced a serious flaw in a number of its programs—including Internet Explorer, Messenger, and Chat—that could allow a hacker to take control of a user's computer to run programs and access information. This was not the first such announcement by Microsoft this year of a major error in its programs, nor is Microsoft alone in this problem. Every day thousands of computers around the world are disabled or illegally entered because of system and software flaws. At best, these bugs are minor nuisances. But at worst, they open systems to viruses, denial of service attacks, and manipulation by outsiders. The consequences include fraud, release of personal and proprietary information, and loss of business due to downtime. A recent study by the National Institute of Standards and Technology found that software bugs cost the U.S. economy nearly \$60 billion each year.

There is no single reason for these problems, but the majority of security holes are due to poor programming and a lack of quality control. Systems and software manufacturers typically place far more emphasis on getting a new system out to market with more profitable features than on ensuring that the system is satisfactorily error-free before it is released. The burden then falls on users to identify and track bugs and fix them before they cause a system failure or are exploited in cyberattacks. There is no other consumer product for which consumers are expected to do so much to ensure product safety, and the creators so little.

THE MISSING INVISIBLE HAND

The computer industry's response is that the market should resolve the issue. Users should select software based on its reliability, and the least flawed programs will win. But thus far, market forces have not succeeded in improving software safety. Why? For many types of software, consumers don't have a real choice. Oracle, for instance, controls the market for enterprise database software, with three to four times the market share of its nearest competitors. Recently discovered bugs in its purportedly "unbreakable" latest release, Oracle 9i, did not prevent the company from maintaining this dominance. Its users, especially those with years of data on its system, are so dependent on its products that they have no credible way to threaten Oracle



with shifting to another provider. The result is heightened exposure to bugs and security risks.

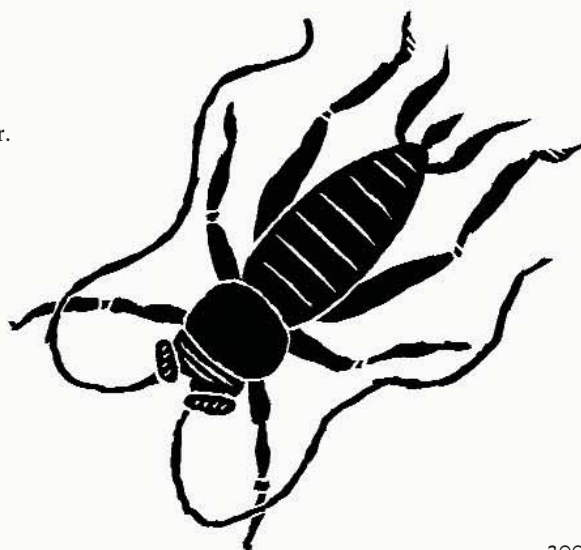
Well-functioning markets also depend on the free flow of information to consumers. But instead of keeping consumers apprised about known software flaws, some companies try to hide them. Network Associates, Oracle, Microsoft, and other software manufacturers include provisions in some of their licenses that prohibit criticism of their software without their permission. Some firms even threaten researchers who publish security holes or write program improvements with civil and criminal litigation under copyright law. In one extreme case, a complaint of copyright violations from Adobe Systems led the Justice Department to arrest a Russian programmer who had written a program demonstrating security flaws in Adobe's eBook software.

Law enforcement efforts have not succeeded in discouraging cyberattackers from abusing security flaws. Though entering or disabling someone else's computer has been illegal in the U.S. since 1984, the perpetrators are difficult to identify, and there are serious limits to the help that law enforcement can provide because of lack of resources. Catching the criminals is even more difficult when they lie outside U.S. jurisdiction, as did the Filipino man who caused billions of dollars in damages worldwide by releasing the "ILOVEYOU" virus. Prosecutions are increasing, but there are still only a few hundred each year—nowhere near enough to act as a deterrent.

UNSAFE AT ANY GIGAHERTZ

For nearly 100 years, manufacturers of consumer products have been subject to product liability laws. These laws stipulate that if a reasonable person would foresee that a product would create a risk of serious harm if not carefully made, then the manufacturer is under a duty to exercise reasonable care in the manufacture of the product. If a company sells a product knowing that it is flawed, then even more severe sanctions can be imposed. Manufacturers can also be held liable for products that are inherently dangerous or are foreseeably dangerous. (I'll leave it to readers to make their own opinions about Windows.)

Being held responsible when their products fail has spurred manufacturers in other industries to improve their safety records. Cars, for example, used to be quite insecure, unreliable, and dangerous devices to use. But imposing liabil-



ity and creating manufacturing standards for cars has greatly improved their safety. Since the first auto safety legislation was passed in the U.S. in 1966, auto fatalities have dropped nearly 75 percent as car manufacturers have started including safety features like seat belts, roll bars, and air bags. In 1991 and again in 2002, the National Academy of Sciences proposed that software and system vendors—like car manufacturers—should be held responsible if they ship programs or equipment without adequately testing for security holes. Yet no action has been taken by policymakers to further this cause. Why must consumers be the electronic crash test dummies for the software companies?

Software manufacturers have worked to absolve themselves of their legal responsibilities by forcing consumers to accept the terms of their licensing agreements at the time of product purchase or installation. These agreements, commonly called "shrink wrap" or "click wrap" contracts, limit or waive consumers' ability to seek damages if the software does not perform as expected—even when the problems are the manufacturer's fault. Not only do consumers not have the opportunity to negotiate these contracts, but in some cases they don't even have the opportunity to read them before committing to the product. (The licensing agreements are often inside shrink wrap and thus inaccessible without

opening the box—but most computer stores won't accept opened software for return.) Most software manufacturers also do not provide a warranty, which would allow consumers some recourse if the product did not perform as expected. Many of the licenses go even further, attempting to muzzle criticism. For instance, the licensing agreement for the Gauntlet firewall program, written by software manufacturer Network Associates (NA), prohibited publishing the results of comparative performance tests. When *Network World* magazine printed a negative review of the program, NA threatened to sue them, claiming a breach of the license contract and demanding a retraction.

INSURING A SOLUTION

Fortunately, the tide is starting to turn toward greater consumer protection. Courts and consumer protection agencies are balk-



ing at many of the more outrageous provisions in licensing agreements. The New York Attorney General filed suit against Network Associates in February, describing their anti-review provision as a “censorship clause” and asking the court to prevent NA from using it.

Furthermore, the computer industry’s effort to get states to enact the model Uniform Computer Information Transactions Act legislation is faltering. The legislation would allow companies to more easily enforce software licensing agreements and limit their liability by removing software as a consumer good subject to the normal consumer laws. But despite the best efforts of software companies and online services, it has been made law in only Maryland and Virginia because of opposition from a variety of organizations, including consumer groups, state attorneys general, computer professional associations, and businesses that buy software.

An important force for change will likely be the insurance market. In July, a federal court ruled that AOL’s insurer did not have to cover the costs of a settlement the company struck to settle software problems that prevented thousands of users from getting online. In addition, firms themselves are starting to purchase additional insurance to protect themselves against bugs and cyberattacks, and insurance companies are responding by imposing higher rates on companies using buggy products. One firm already charges 15 percent higher e-commerce premiums to companies using Microsoft’s IIS Web hosting platform than those using its competitor, Apache. If this practice spreads, software manufacturers will have to improve their products or risk losing business.

Holding manufacturers liable for software and system flaws will not solve all the security problems. Users will still have to screen for viruses and install firewall software, just as drivers must obey traffic safety laws. But it is time to stop expecting users to pay the price for manufacturers’ mistakes. *

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Challenges of



The 1990s treated the world to a vivid demonstration

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conditions and policies are right. But making good public policy is genuinely hard. The job of reformers is to find ways to do it better.

REMARKS TO THE BOSTON ECONOMIC CLUB
APRIL 17, 2002

I want to raise a big subject today—our modern, free-market capitalist system and three major challenges it faces. I use the word “challenges,” but “dilemmas” might be better. A challenge suggests an obstacle that can be overcome by making a greater effort; but dilemma implies that there is no obvious right answer. A dilemma can be worked through, but only with continuous balancing of competing objectives, and dilemma better describes what I want to discuss.

The first dilemma is illustrated by the widening disparity in incomes and wealth in the United States, as well as in the world: how to make free-market capitalism work better for everyone—not just the educated, the skilled, and the lucky.

The second is illustrated vividly by the Enron/Arthur Andersen fiasco: how to ensure a culture of integrity, one in which people who run companies, especially big ones, strive to merit the trust of investors and employees.

The third is exemplified by current battles over the federal budget and similar local dramas playing out all over the country: how to ensure that our enthusiasm for harnessing private motives to produce goods and services efficiently does not blind us to the need for public goods and to the benefits of communities working together toward shared goals. >>





LEARNING FROM THE 1990s

The 1990s were an extraordinary period in U.S. economic history. For a whole decade, starting early in 1991, we experienced sustained growth, low unemployment, low inflation, and rising incomes. Productivity growth, which determines real incomes, surged unexpectedly in the second half of the nineties. Economists are not sure of the reasons for the pickup, although technology was clearly a big part of the story. Monetary and fiscal policies combined to keep interest rates low and made investment attractive. Both policy and economic forces compelled U.S. business to be more competitive or be wiped out. Freer trade, deregulation, and global competition all contributed to greater U.S. competitiveness, as did more effective management techniques and more flexible compensation and production.

We learned at least two lessons from the economic experience of the last decade. First, we learned—or rather relearned—that low unemployment rates are a powerful positive force. With tight labor markets, wages moved up at the bottom as well as the top. Scarcity of labor provides effective incentives—both for individuals and for companies—to invest in training and education and to use skills and workers effectively. Second, we learned that we can have low inflation *and* low unemployment at the same time if productivity is growing fast enough.

The boom of the 1990s treated the world to a vivid demonstration of how well free-market capitalism can work when all

the conditions and policies are right, especially when rapid technological change is propelling growth in productivity and labor is scarce. That is when flexibility and competitiveness pay off, capital moves quickly into new ventures—although not all of them succeed—and it is relatively easy for people to move from declining industries into new ones.

The timing of this demonstration was fortuitous, because it followed closely the break-up of the Soviet bloc and contrasted with an equally vivid demonstration that centrally planned economies don't work. The abilities or motivations of central planners are not the issue. Even highly skilled and public-spirited people cannot make a centrally planned economy operate so as to produce a high standard of living. The problem is just too complex. It is much more efficient to let private incentives and the profit motive do

the job of deciding what to produce and how to produce it. Free-market economies create far more opportunity for individuals to use their talents. They also provide less opportunity for corruption, since power is more diffused and can be competed away.

That lesson has been widely absorbed, although the transitions are horrendously difficult, as Russia, Eastern Europe, and China have all found. But despite the difficulties, the tide does not seem likely to turn back in the direction of central planning and state ownership. Even the mixed economies of Europe and elsewhere have moved aggressively to privatize their state-owned industries and to introduce more competition and private incentives into public services such as health care.

THE DIFFICULTIES OF GETTING POLICY RIGHT

Just about everybody has concluded that a high-performance economy has to be one in which the dominant motivation behind economic activity is a pursuit of personal gain. What is not widely recognized is that the easy part of a free-market economy is the market part. The hard part is creating the public policy environment within which the market can operate effectively.

We don't stop very often to think about how demanding a task we have given our policy makers. Indeed, Americans are in almost continuous high dudgeon over the failures of our policy makers. We think we are justifiably disappointed that they spend so much time arguing and never get things right. We

Millions of Americans still work for minimum wages at draining jobs with little security and not much future

shake our heads and mutter that if only we had better people or stronger leadership in Washington or Boston everything would be okay. Or we blame democracy—at best a messy way to make decisions—without realizing that most of the problem is not the democratic process. The fact is that making public policy for a free-market economy is genuinely hard.

What makes it so hard? First, if markets are to work, there have to be rules of the game about property rights, bankruptcy, contracts, and not injuring others in specified ways. And

the rules have to be enforced. Countries in transition from centrally planned economies to free-market capitalism have found out how hard it is to make capitalism work if those rules—and the institutions that enforce them—don't exist or don't have a long and rich history.

Second, there have to be social, environmental, and other public policies in place to handle the fact that people and companies operating in their own interests tend to load costs onto others when they can and leave behind those unable to fend



ABOUT THE AUTHOR

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Fixing the rules visibly and swiftly will reassure investors that company financial statements tell the truth

for themselves. And third, there are genuine public goods—armies and navies, police, roads, parks, and public health services—that private investors operating on their own will not provide.

Dealing with these questions is the intellectually and morally challenging aspect of a free-market system. It requires constantly adjusting incentives and regulations, just enough to accomplish a public purpose and move activities modestly in one direction or another, without impeding the main action of the private-sector players and the productivity of their operations. The process is complex and contentious, and the policy makers can never get it right. They have to keep tinkering as conditions change. That's why our tax code is so complicated. That's why it is so difficult to "fix" the welfare system or Medicare.

For many decades, those dissatisfied with economic outcomes held out the hope that some other system would work better. Now that hope is lost. Reformers have to turn to the hard task of improving the rules and making free-market capitalism work better. This process is hard work and does not lend itself to slogans and demonstrations. The young demonstrators who march outside international meetings (the World Bank, International Monetary Fund, World Trade Organization, G-7, etc.) and shout "Down with capitalism!" are responding to real problems, but not contributing to real solutions. They are fundamentally anachronisms—relics of a day when it was plausible to shout "down with capitalism," because socialism, communism, or Maoism seemed to be viable alternative systems.

REDUCING INCOME INEQUALITY

Today, free-market capitalism has won the contest among systems in a fair fight, and the job of reformers is to make it work better. But these dilemmas of modern capitalism that I want to talk about have no easy or obvious answers, because they involve balancing sometimes conflicting values that are widely and simultaneously held.

First, how do we make capitalism work better for people in the bottom quarter or third of the distribution of skill, education, income, and luck? In this regard, the world's biggest problem is in developing countries, but I'm not going to talk about that today. We have a big enough dilemma here in the United States.

In the 1970s and 1980s, the gap between the top and the bottom of the income distribution widened both because incomes at the top were moving up and because people in the lower

third of the income distribution were seeing their real incomes falling. The 1990s were better because—at least by the second half of the decade—even unskilled workers were scarce, so wages began moving up at the bottom. Low unemployment rates meant that more people had jobs at better pay. Meanwhile, premiums for skill, education, and risk taking were rising very fast. People with college and graduate degrees were doing *really* well.

But even in the prosperous 1990s, the richest, most productive country in the world had a lot of people living on the edge of desperation. Millions of people still work at the minimum wage or not much above, at hard, draining jobs with little security, no health insurance, and not much future. Many are single moms whose kids are getting a tough start in life; some are older workers without the skills to make it in the modern economy. A lot of working people see this economy generating enormous rewards—high salaries, expensive effective medical care, fancy cars, and vacations—for other people, while they are left behind. They don't feel part of the general prosperity or have much hope for the future.

This situation isn't inevitable, but it isn't easy to fix. No magic solutions exist, and no single set of actions—whether by federal, state, or local officials, by corporations, by small businesses, or by community groups—can make it happen. But the combined effect of many actions, public and private, would make a difference. They must balance the benefits of raising rewards for lower-skilled workers against the risk of reducing their incentives to work and the incentives of employers to hire them—a challenging task.

There are plenty of useful tools available. At the federal level, we can raise the minimum wage (but not too far), increase the earned income tax credit or food stamps, or provide vouchers to make decent housing more affordable. Welfare reform has "worked," in the sense that it has moved a lot of low-skilled mothers into the labor force. But their jobs are precarious and mostly do not pay enough to put them on a solid track to self-sufficiency. Actions that would help include improving schools, mentoring kids, revitalizing neighborhoods, and providing more money for student aid for college and technical education. It's a long list. But the most obvious way to make life better for low-income workers is to improve their access to health care. It is unconscionable that more than 40 million Americans don't have health insurance, most of them in working families. But there is no easy way—as the Clinton administration found out—to balance all the incentives. These include incentives to providers to deliver good quality care and deliver it efficiently; incentives to individuals to seek care when

they need it, including preventive care, but not to overuse it; and incentives to employers to cover their workers, but not lock them into their jobs.

One big thing *not* to do right now is reduce tax rates on the top quarter of the income distribution. The benefits of the enacted tax cuts scheduled to take effect later in the decade go entirely to the top quarter, and disproportionately to the top 1 percent. These are not the people who need tax reductions, and there is no convincing economic argument for such cuts. In the 1970s and 1980s, when productivity was growing slowly, advocates of cutting tax rates in the top income brackets used to talk about the need to increase incentives to invest. But the economy of the 1990s—with its high investment and rapid productivity growth—undermined that case. Advocates of tax cuts for those at the top are left with arguments such as “It’s our money,” or “Those who oppose reducing taxes are fomenting class-warfare.”

IMPROVING CORPORATE CULTURE

The second dilemma is dramatically illustrated by the spotlight on Enron and Arthur Andersen. The story will play out in the courts, but there is not much doubt about the basic facts: Enron’s public accounts didn’t give a true picture of its situation, *and* insiders profited hugely while misleading stockholders and employees.

In many ways, the Enron story is an example of the swift justice and the self-corrective mechanisms of a free-market economy. Getting caught misleading investors is punishable by death, and there is no appeal from the court of investor wrath. The company failed. It won’t be resurrected from bankruptcy, and its auditors went down with the ship. Bankruptcies are an effective punishment that planned economies don’t have.

But Enron also demonstrated that we don’t have the rules of the game right yet. The essence of free-market discipline is that publicly traded companies disclose their earnings, assets, and liabilities for all to see. On that basis, investors decide whether to invest. The accounting rules haven’t caught up with the rapidly increasing complexity of business transactions, as the current discussion of special-purpose entities amply demonstrates. Enron and other companies have been able to overstate earnings, hide debt off the balance sheet, and create a rosier picture than reality.

Even more dismaying have been insider deals that enriched executives at the expense of shareholders, many of whom were

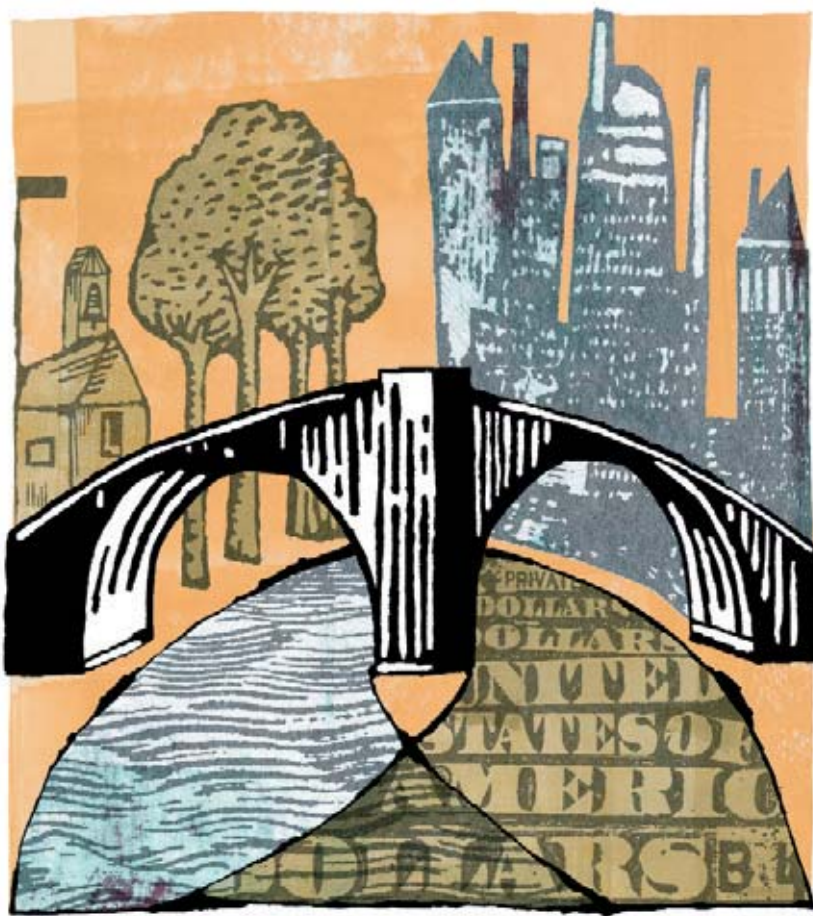


employees—and the spectacle of executives touting the soundness of the company’s stock while secretly dumping their own.

Irresponsible behavior and corporate excesses abuse trust in egregious ways—not just trust in one company, but trust in the whole system. People working hard for low wages may be having a tough time, but many still believe that they and their children have a chance to do better in the future and to get ahead in a system that rewards work, skill, and ingenuity. But if they come to believe that the system is corrupt, that the bosses lie and cheat and make out like bandits at the expense of hard-working folks, something very fundamental is lost. That’s why Enron and Andersen matter so much. It is why the rules need to be fixed quickly and visibly to reassure investors that what they see on the earnings statement and balance sheet is what is really happening.

But, rewriting the rules is harder than it sounds. Modern transactions are extremely complex, and accounting for them involves complex rules that may have unforeseen and counterproductive consequences. The simple idea of requiring that compensation in the form of stock options be counted as an expense sounds like a no-brainer until you start writing the rules for valuing the options and worrying about the differential effects on various kinds of companies.

And yet, even without rule changes, the Enron/Andersen debacle is already having positive effects. Companies and their auditors are examining their policies and bending over backwards to make sure they don’t run the risk of becoming the next headline.



There are things
we need government
to do—or at least
to organize

PROVIDING BETTER PUBLIC SERVICES

The third dilemma of capitalism involves improving public services. Our economic system depends on harnessing private motives to produce the goods and services that the public wants as efficiently as possible. This works well for most of the things we need, but not for some of the most important—national defense, police and fire protection, roads and bridges, research and education. The danger is that we get so carried away with free-market rhetoric that we forget how important public services are and how important it is to attract able people into public service.

Americans have a long tradition—going back to the Boston Tea Party—of rejecting authority. In recent years, it has again become popular to rail against the government as though it belonged to some foreign power, instead of to us. We have been treated to the comic spectacle of politicians who have worked for the government for most of their careers campaigning against the government and its “bureaucrats” as though they were talking about a foreign enemy. Then something brings us up short.

In 1995, while I was budget director, Congress voted to close the federal government rather than compromise with President Clinton over budget priorities. The congressional leadership thought the closure would be popular and that it would show people they could get along with less government. To the legislators’ surprise, citizens were outraged that they couldn’t go to national parks, get passports renewed, have their Federal

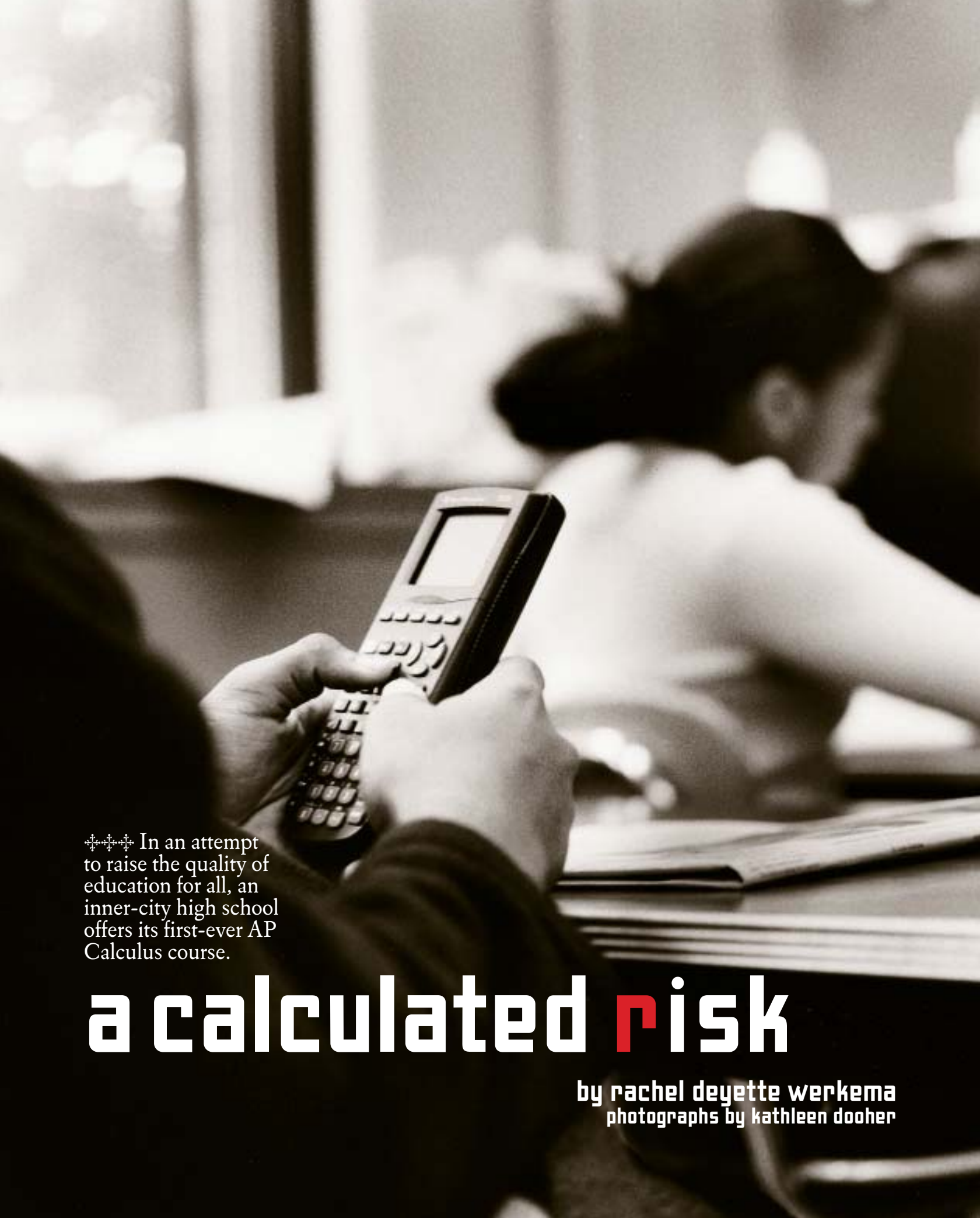
Housing Administration housing loans approved, or get their student aid applications processed. They found out that government did useful things that they took for granted. We found out again on September 11th—when police officers and firefighters, soldiers and airmen were suddenly transformed into the heroes we were all depending on to save our lives and our way of life.

A free-market system, because it is so productive and efficient, can actually afford *better* public services, better schools and universities, better health care, better parks and recreation facilities, and better transportation systems than a centrally planned one. Some of these services can and should be provided by private philanthropy and citizen volunteers—a great strength of our system.

But sometimes our commitment to private decisions and the profit motive gets in the way of recognizing that there are things we need government to do or at least to organize. I believe that we are foolishly and short-sightedly underfunding some of our most essential government services. We don’t pay enough to attract the most qualified and ingenious teachers to that demanding profession that affects young people’s lives so directly. We aren’t investing enough in the modern sewer and waste treatment that could give us cleaner, more beautiful rivers. We aren’t spending enough to ensure that everyone in society has health insurance and good-quality health care when they need it. We are not adequately funding the Social Security and Medicare programs that will come under increasing stress as the population ages.

The problem is not that we can’t afford to do these things. It’s more that our free-market rhetoric gets in our way. One legacy of the old battles among competing systems is that those most committed to the free-market economy think they have to starve public services because better schools or roads or cleaner rivers might lead us down the road to socialism. But that’s silly—no one wants socialism anymore. The right-wing worriers are as anachronistic as the left-wing demonstrators.

The challenge for those who believe in free markets is to keep this great system working and, at the same time, to figure out how to make work pay better for those who do the hardest jobs at the lowest wages; how to maintain integrity in our corporate culture; and how to use our productivity and wealth to ensure that we have top-quality public services as well as private ones. *




✦✦✦ In an attempt to raise the quality of education for all, an inner-city high school offers its first-ever AP Calculus course.

a calculated risk

by rachel deyette werkema
photographs by kathleen dooher



✦✦✦ In 1995, Algebra I was the most advanced math course offered at the Jeremiah E. Burke High School in Boston.



The sound of teenagers chattering barely pauses as the bell indicates the start of the class period. As a few last stragglers enter the room and take a seat, a firm but friendly voice penetrates the chatter. § “Good people, look up at the board. You have five minutes. Everybody take out a sheet of paper, no talking. It’s all about speed. Five solid minutes, you know it or you don’t, people. If you don’t have it, turn in what you do have for partial credit. Let’s have it quiet. In three...two....” The room falls quiet before the countdown reaches one. On the whiteboard in the front of the room is the statement: *Quiz: Find the derivative of $f(x) = 4\sin(2x^3)$.*

Some 20 students stare at the board, pick up their pencils, and work on the problem with varying degrees of concentration. It is early November, and this could be a calculus class at any high school in America. Fluorescent lights hang from the ceiling, lighting the work spaces for the students sitting in groups of four to six at four rectangular tables. The teacher has decorated the room to set a tone appropriate for an advanced placement (AP) calculus class. Above the whiteboard a banner states, “Theme for 213: Excellence not Mediocrity.” Across the room, a poster reminds students that “Your life is a product of your choices... Choose carefully!” Another encourages each member of the class to “Be a problem solver, not a problem maker.”

Being a problem solver is a highly valued quality in this classroom, where students struggle daily to master advanced mathematics.

“Time’s up, people. We’re going to have these every day. You’ve gotta know this stuff,” announces Michael Dixon, the leader of this journey through calculus. An African-American product of the Chicago public schools and a graduate of MIT, Dixon may not be a typical math teacher. His youthful appearance disguises his near-decade of experience teaching physics in two affluent Massachusetts towns. But AP Calculus is a new course for him, as it is for this particular school, whose faculty he has recently joined.

This classroom is also not a typical AP class-

room. According to the College Board, nearly two-thirds of all AP test-takers are white, and the percentage among calculus examinees is even higher. But the students working through this “speed quiz” are nearly all students of color: African-American students, students from Cape Verde, Vietnam, Hong Kong, and Haiti. The sole white student is a recent immigrant from a war-torn region of the world. Many come from homes below the poverty line, and most would be the first in their families to go to college. Although this sets them apart from the typical AP test-taker, it unites them with the rest of the students in their school, the Jeremiah E. Burke High School, where 97 percent of the pupils are students of color and many come from poor households.

The Burke is located in Boston’s Grove Hall neighborhood, which straddles the city’s Dorchester and Roxbury communities. No entrance exam is required. Students come here because of the bilingual instruction in Cape Verdean Creole (about one-third of the Burke’s population is “limited English proficient”); or because brothers, sisters, and cousins have attended the school; or because the district’s computer system assigns them here. Now students have another reason: the opportunity to take up to four advanced placement courses, in calculus, physics, U.S. history, and English.

This is quite a change from 1995, when the Burke’s curriculum was deemed so weak and its facilities so poor that the New England Association of Schools and Colleges stripped the school of its accreditation.

Math was a particularly weak spot. Steve Leonard, who took over as the Burke’s headmaster shortly after the loss of accreditation, remembered piles of letters from colleges asking for explanations of courses like Consumer Math and Stretch Algebra. “They were holding up people from this school from playing athletics, getting accepted, using scholarships—anything—because the curriculum was nonexistent,” he said. Among

Many Burke students come from homes with low incomes; most would be the first in their families to go to college.

other shortcomings, the math curriculum's most advanced class was Algebra I, and that was offered "only for an elite group of children," noted Nicole Bahnam, who was appointed assistant headmaster in charge of academic instruction at the beginning of the 1995–96 school year.

The Burke has come a long way since then. It has revamped its educational philosophy, raised expectations of student performance, and, perhaps most important, has been able to claim the resources necessary for the school to operate effectively. For the Burke to transform itself required nothing short of a revolution in the way the school viewed itself and its students, and in the way it was viewed by the school system. That such change could be—and was—undertaken is an encouraging sign, and may provide a model for other urban schools looking to shed reputations of low achievement and low expectations. But the fact that the Burke had to sink to such depths before the city heeded its cries for help provides a cautionary backdrop, especially as the Boston public schools enter the 2002–03 academic year facing a budget shortfall—the same circumstances that preceded the Burke's prior rise and demise.

HISTORY REPEATS ITSELF

Observers of the Boston public schools over the past few decades may recall previous resurrections of the Burke. In the 1980s, the high school was seen as a dumping ground, plagued by gang violence, drugs, and a "criminal" image. By 1990, however, the school was touted as an oasis of learning and was receiving praise for its remarkable success in sending students to college. This praise would prove to be short-lived, as fiscal pressures resulted in budget cuts in the early 1990s, gutting programs and slashing teacher positions across Boston. While all the city's schools suffered, the damage at the Burke would prove to be especially costly.

The high school lost teachers across all subject areas, forcing it to drop French and business from its curriculum. Its librarian position was eliminated, rendering the library virtually unusable. The guidance staff was cut from two counselors to one. Other cuts in support staff and security limited after-school programs. Throughout this period, enrollment at the school was rising, from 650 to 800 to close to 1,000 students by 1995. This imbalance between students and resources proved too much for the New England Association of Schools and Colleges, the regional accrediting body, which voted to strip the Jeremiah E. Burke High School of its accreditation in May 1995, the first decertifi-

cation of a New England high school in over a century.

The public embarrassment caused by decertification served as a call to action. The central school office assigned Steve Leonard, who had turned around other troubled schools, to lead the Burke. Leonard was well aware of the ironic advantages brought about by the accrediting association's decision. Losing accreditation, he observed, "was the blight that everybody wanted to go away as fast as possible." No doubt a complaint filed by Burke parents with the United States Department of Education's Office for Civil Rights, charging the district with short-changing their predominantly black high school relative to schools with higher white enrollments, also helped to move things along. The district doubled the school's budget from \$2.5 million to \$5 million and reduced its enrollment. The school used these funds to hire staff and rebuild the Burke's academic programs as well as its attitude.

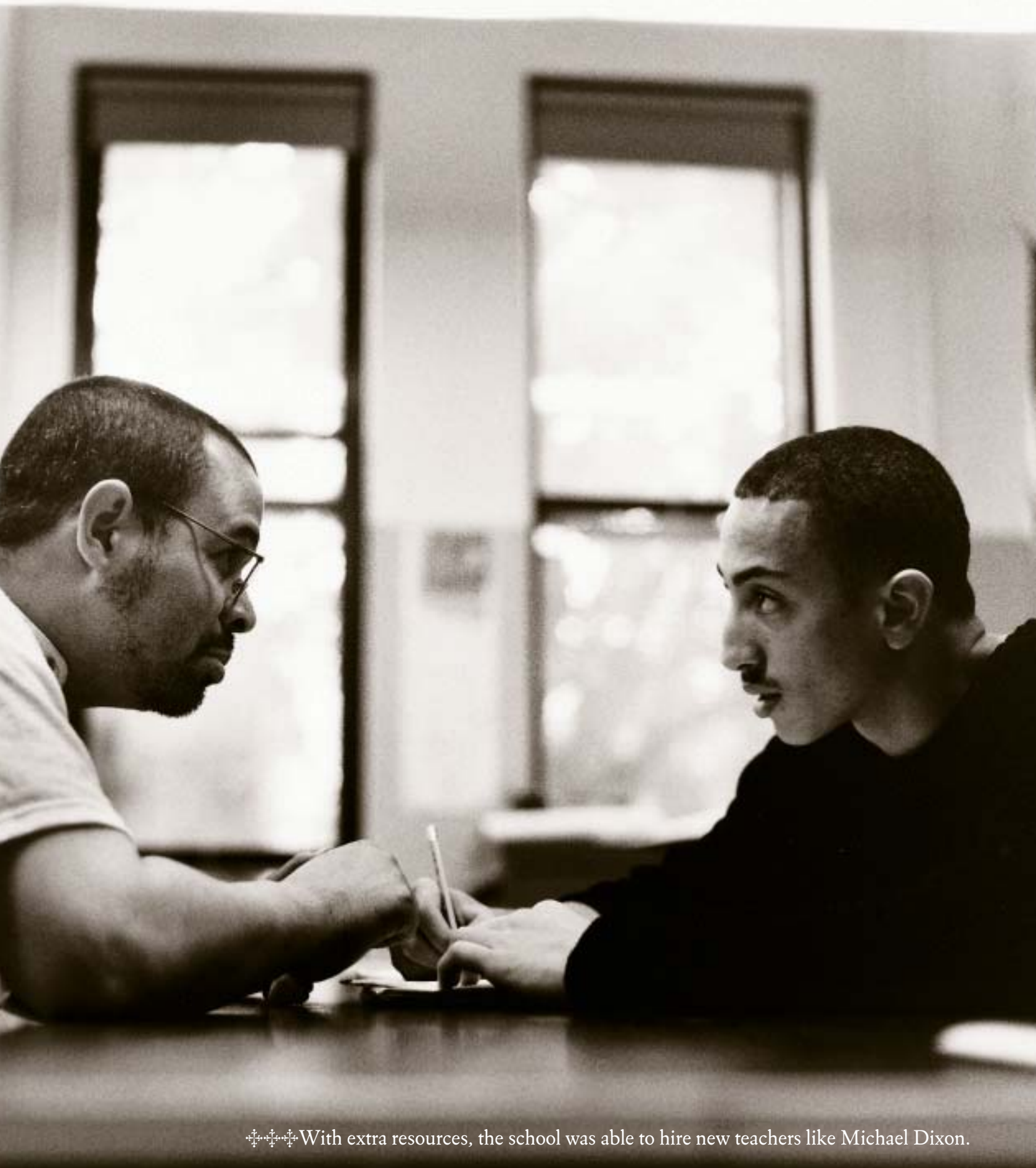
Observers of the Boston public schools may remember previous cycles of decline and resurrection at the Burke.

Though the normal waiting period to reapply for accreditation is five years, Leonard was determined to regain it for the Burke in just three. As Leonard tells it, the first priority was creating an environment conducive to learning and teaching, and that meant establishing order. "The place was not running like a school," he said. "There were rules, but they were rules on paper. So we spent, literally, two years changing the whole way that people operate."

The school addressed a host of issues, ranging from basic standards of behavior to school-wide academic expectations. Students were not permitted to roam the halls, and there were to be no excuses for poor student performance.

Everyone at the school was responsible for sending consistent messages about acceptable personal conduct and work standards. "A whole cultural change had to take place," Leonard recalled. "The staff really had to believe that the same kids who were running around here... were just as able to come to school, sit in their classes,





✦✦✦ With extra resources, the school was able to hire new teachers like Michael Dixon.

✦✦✦ Boston's Grove Hall neighborhood, home to the Burke, straddles the communities of Roxbury and Dorchester.





"The staff had to believe that the same kids who were running around . . . (could be) motivated to higher education."

pay attention, learn, and be motivated to higher education."

The changes involved major shifts in what teachers expected not only of students but also of themselves. "We had to put in place a culture that said, 'No excuses for nonperformance of students.'" He informed both current and prospective teachers that they had to be prepared to go above and beyond the responsibilities spelled out in their contract. The new Burke was going to exert intense demands on their time, energy, and creativity. "Every man, woman, and child in this building

had to change everything he or she knew about how education happens in the Boston public school system."

In exchange, the school offered teachers who signed on for the program greatly increased support and intensive professional development. The first target was the culture of low expectations. "We tackled attitude," said Bahnam. "The message we were sending was very consistent. If you want to work with us at the Burke High School, then you believe that our children can learn." In addition, content experts and instructional "coaches" helped to fill holes in teachers' knowledge of their subjects and to support literacy and technology initiatives.

School administrators also took steps to encourage teachers to try new things. "We understand that everything isn't going to work," Leonard noted. "That doesn't mean we don't evaluate people, performance-wise. As a matter of fact, the fastest way to get a bad evaluation... is to do the same thing over and over again, and expect different results." Instead, he gave teachers credit for risk-

Expanding Access to Advanced Placement

The Advanced Placement (AP) program began in 1955 for a small group of academically elite high school students, mainly in private and suburban high schools. Since then, it has expanded to serve over 800,000 students in over 13,000 high schools, offering exams in over 30 subjects. However, a recent study on the future of the AP noted that despite substantial growth of the program beyond its initial target audience, 43 percent of the nation's high schools still do not offer AP courses.

In recent years, the College Board has placed increasing emphasis on providing AP opportunities in traditionally under-represented schools, among them the non-selective urban public high schools like the Burke. There has been some success: Over the past ten years, the number of students taking AP exams in Boston has more than doubled. However, until very recently well over 90 percent of candidates attended one of the city's three schools that require an entrance exam for admission.

AP Advance

The number of public high school students taking at least one AP test per 100 12th graders has increased in Boston's non-exam high schools.

	BOSTON NON-EXAM*	BOSTON INCLUDING EXAM	MA	U.S.
1991	NA	NA	12.6	11.8
1992	0.2	10.2	13.8	12.6
1993	0.4	11.2	14.6	14.0
1994	0.2	10.4	16.4	14.4
1995	0.6	13.5	17.8	16.4
1996	1.2	16.6	19.4	16.7
1997	0.9	17.1	21.7	17.5
1998	1.5	18.9	22.6	18.7
1999	2.3	21.4	25.0	20.4
2000	2.4	21.4	27.0	21.7
2001	7.5	24.1	28.7	NA

* Boston public high schools, such as the Burke, that do not require an entrance exam for admission
SOURCES: U.S. Department of Education, Massachusetts Department of Education, and the College Board

taking. “Do something different to get students to move toward the goal.”

A CALCULATED RISK

Certainly, the decision to offer AP courses at the Burke was something different. Leonard had instructed his assistant headmasters, led by Bahnam, to craft a curriculum that would, at a minimum, provide every Burke graduate with the skills to gain acceptance to a technical college or that would impress an employer. To prepare students for admission to four-year colleges, the school restored classes in subjects like foreign language and added more advanced classes in other subjects.

AP Calculus went a step further. Calculus rarely is listed as a formal requirement for high school graduation or a prerequisite for college admission, unlike Algebra II. However, calculus on a high school transcript is a positive sign for college admissions officers, especially those at the most competitive schools. The Burke’s strengthened curriculum would prepare its students better for higher education, but without some marquee courses such as calculus, Burke graduates would have a hard time competing for slots at top colleges or for admission to certain college majors.

By 1999, the groundwork was in place for AP Calculus. Mathematics course offerings had expanded to pre-calculus, and Bahnam was eager to offer the next step in the math sequence. Having closely observed the upgrading of the math curriculum, course by course—and witnessing the students’ success with each increasingly sophisticated level of mathematics—she felt that the time was right, and the students were ready.

A few hurdles remained, though. One was convincing students to sacrifice part of their summer vacation for a 7:30 a.m. pre-calculus class at Northeastern University that would help them prepare. The Northeastern course, attended by rising seniors in other Boston high schools, helped fill a void created by the typical mathematics track in the Boston public schools. Most students in Boston begin the college prep math sequence of Algebra I, Geometry, Algebra II, and Pre-calculus in grade 9, leaving them no time to reach Calculus by senior year without some kind of acceleration. Bahnam gathered a group of juniors identified both for their math skills and their motivation, and personally implored them to accept the calculus challenge.

The second hurdle was finding a calculus teacher. As luck would have it, Michael Dixon, a doctoral student at Boston College, had come to do research at the Burke through an initiative to

connect graduate students with K-12 schools organized by the Northeastern University mathematics department. Dixon’s experience and background, plus his desire to teach inner-city students, meshed with the Burke’s need for a calculus teacher willing to launch an AP course. By September 1999, the Burke had primed more than 20 seniors for its inaugural calculus class.

From the beginning, Dixon created a culture of high expectations. His classroom was constantly humming with group work, problem-solving, and project demonstrations. Students were confronted with mathematical problems from the moment they walked into class. A typical class would begin with a speed quiz. Dixon would then work through the quiz with the class to provide immediate feedback. Next, he would introduce the day’s topic through a demonstration problem, solving it step by step with input from the class. Finally, several more problems would go up on the whiteboard, and the students would go to work, helping each other while he circulated around the room.

Throughout the term, conventional tests were interspersed with less traditional term projects. In one project, students combined their knowledge of physics and calculus to predict the duration of a roller-coaster run; in another, they traveled to an elementary school to explain math concepts to fourth graders.

Dixon pushed the students to tackle the sophisticated subject matter with a balance of encouragement and, when necessary, gentle admonishment. In one class, a group effort to take the first derivative of a complicated exponential function met with enthusiasm from some corners and blank and indifferent stares from others.

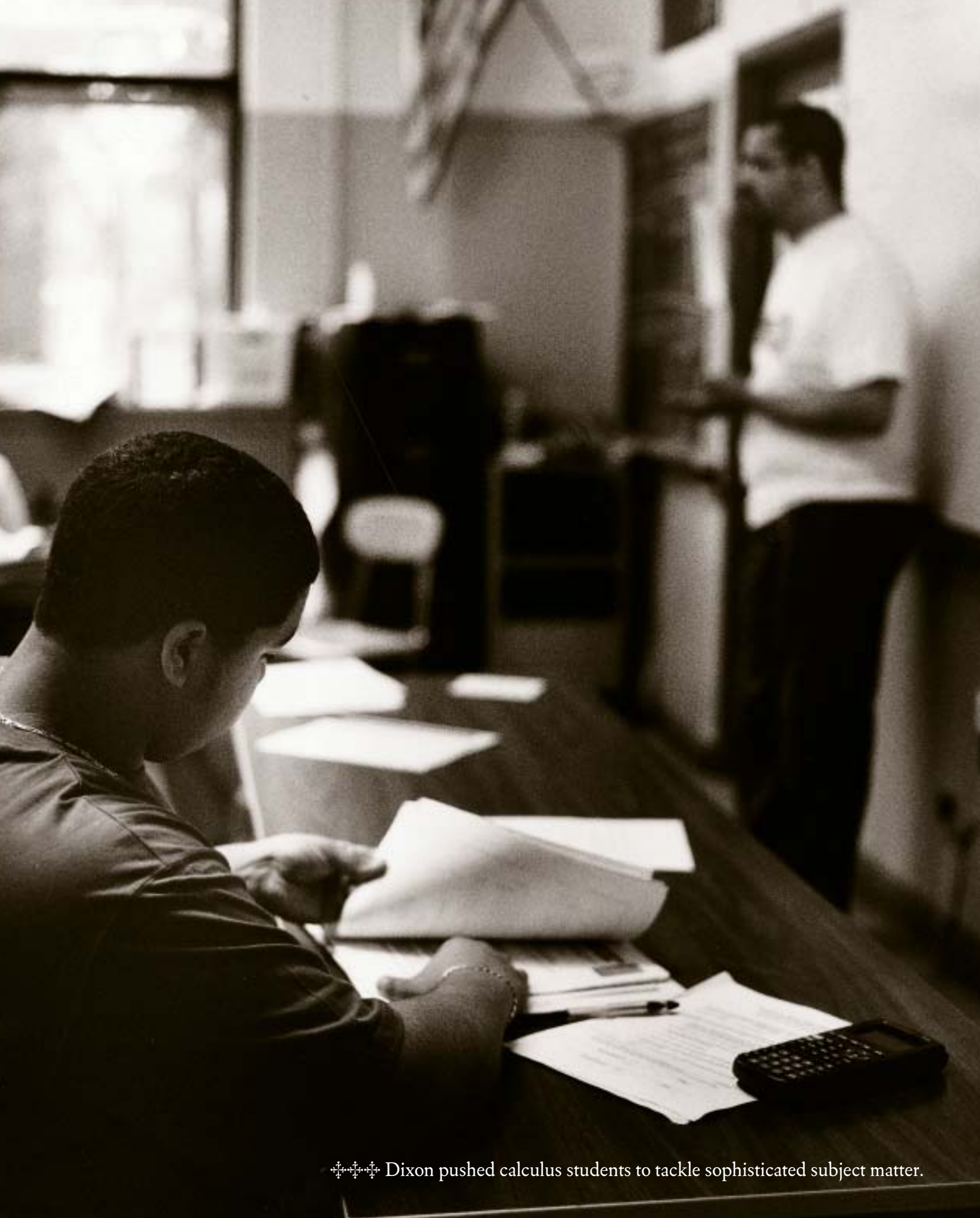
“What’s the rule that we need?” Mr. Dixon began the discussion.

“The chain rule,” a voice called out. Dixon acknowledged the answer and then prompted the class for more.

“The derivative of e^x is e^x ,” offered one of the

School administrators encouraged teachers to take risks, try new things, and “do something different.”





✦✦✦ Dixon pushed calculus students to tackle sophisticated subject matter.

✦✦✦ Urban schools can find themselves continuously pitted against each other in a struggle for clout and resources.



Staff are wary that the Burke will be a victim of its own success, as money moves to deal with the next public crisis.

top students in the class.

“Yes,” agreed Dixon. “But, what about the product rule? Anybody remember the product rule?”

Another strong student talked the teacher through the formula. Pressing further, Dixon called on two students to help him take the derivative. Their respective responses of “I don’t know” and a shrug of the shoulders triggered Dixon’s impersonation of a college admissions officer:

“He wants to come to Hampton? Well, how hard is he willing to work? What does his teacher recommendation say?”

Dixon wrapped up the discussion with his characteristic “Good people, you’ve got to know this.” As the class ended, he continued to push. “You have to practice. We have to fill the holes. I’m here after school; I’m willing to meet on Saturdays.”

While he knows the students at the Burke may have extra hurdles to jump, Dixon is clear that in his view this is insufficient grounds for low expectations. “Kids in the suburbs succeed much more easily... . The whole culture is set up for them to succeed. These guys are no less talented than the folks in the suburbs. They may have a long way to go, but they can do it.”

WHY CALCULUS MATTERS

Now two years later, students from that first year of calculus see the value of the class. “Calculus was a lot of work,” recalls one student. “But Mr. Dixon’s class made me better prepared when I got to college.” “Dixon, he really knew his stuff,” said another. “I didn’t believe that we would really

see all those things again; but in my college calculus class, a lot of the material was what we had done at the Burke.”

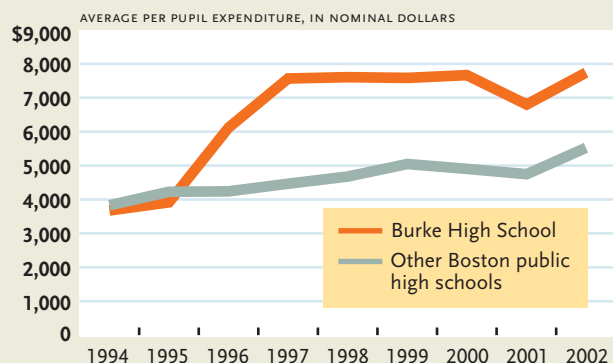
While a few students were able to translate their work directly into college credit, most saw the class as a boost to their college applications and to their belief that they belonged in the competitive academic atmosphere of a college campus. One student studying business remarked, “Everyone here had taken calculus. I don’t know what I would have done without it.”

Not only does studying calculus in high school help prepare students for college, but as the building block for advanced study in mathematics, science, engineering, medicine, business, and the more quantitative social sciences such as economics, calculus also opens doors to careers in these fields —many of them fields in which people of color are underrepresented.

Since schools that serve high concentrations of poor students and students of color have traditionally offered limited opportunities to study advanced math, the relative dearth of engineers, computer scientists, mathematicians, and other technical professionals from African-American and Latino backgrounds is not surprising. Yet, these technical fields are key to future economic growth, and schools that do not equip their students for mastery of advanced mathematics contribute to the growing gap between the needs of the U.S. economy and the ability of educated workers to fill them.

Budget counts

Boston’s public high schools vary widely in the programs they offer and the students they serve, making spending comparisons difficult. Nonetheless, we do know that the Burke’s rise closely tracks the size of its budget, and school staff worry about their ability to maintain progress.



Per pupil expenditure is the sum of the district budget amounts allocated to each school divided by the sum of the total enrollment at each school in each fiscal year. Schools include those with at least 400 students, including Boston High, Boston Latin, Boston Latin Academy, Brighton, Charlestown, Dorchester, East Boston, English, Hyde Park, Madison Park, O'Bryant, Snowden, South Boston, and West Roxbury.

SOURCE: Boston Public School District and Massachusetts Department of Education

Providing a course like AP Calculus also helps a school like the Burke to break free from stereotypes. While not every student will take AP Calculus, especially when a majority of students are still not passing the math portion of the grade 10 Massachusetts Comprehensive Assessment System (MCAS), schools like the Burke should not neglect the higher end of the curriculum, argues Bahnam. “The kids are going to have to pass the MCAS test, which is a rigorous test.” But she noted, “There has to be another level. And the higher level is going to be the AP.”

Already people are rethinking their opinions of the Burke. At the city’s annual Showcase of Schools, people who paused at the Burke’s table looked twice when they saw the AP course offerings. “The Latin School was right next to us,” Bahnam reported. “And we could say, ‘Yes, it’s the exact same test. If your child doesn’t make it to the Latin School to take advantage of the AP, we have the same opportunity.’”

WHAT MONEY CAN BUY

Today, the Burke is hailed by many as an urban school reform success story, in part because of the higher academic standards represented by the addition of AP courses, such as calculus, to the curriculum. In just four years, it transformed itself from a public school without accreditation, whose math curriculum topped out at Algebra I, to one graduating over 20 seniors with a year of calculus under their belts.

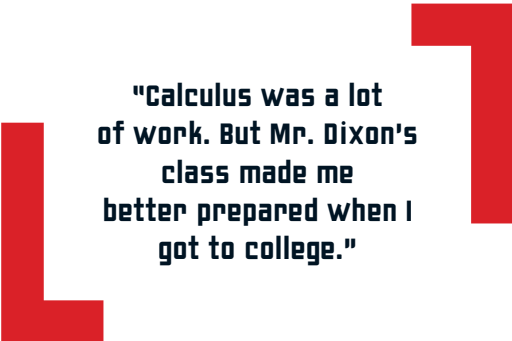
And the school has made other impressive academic strides over that same time frame. Its performance on the MCAS has improved at a rate faster than the district overall; after finishing last among the city’s tenth-graders in the first MCAS administration in 1998, the Burke’s test scores now place it solidly in the middle of the city’s district high schools. The share of Burke students taking the SAT has climbed; and in 2001, the school succeeded in getting virtually all of its graduates accepted at two- or four-year postsecondary institutions. This latter achievement resulted in a \$25,000 Inspiration Award from the College Board.

Though the Burke has seen steady improvement, the staff remains wary that the school will be a victim of its own success. In the political reality of urban school districts, the school department must allocate limited resources among a large number of schools, all with serious needs. The result is schools that are continuously pitted against each other in a struggle for political clout and the “above formula” funds and staff that come with it.

Steve Leonard has seen that resentment. As the

school department showered the Burke with extra resources throughout its restructuring, other principals complained that the Burke worked because it had resources. But Leonard points out that what the Burke was given—the supposed “extras”—are actually what every urban school needs to serve its students. “What the Burke has is what we need. That’s the mantra that has to come out of every head in this city,” he stated. “What is the main obstacle to everybody doing this? One thing. The resources.”

The Burke’s turbulent journey over the past decade—from showcase school to symbol of



“Calculus was a lot of work. But Mr. Dixon’s class made me better prepared when I got to college.”

blight to steady renewal since 1995—closely tracks the size of its budget (see chart on page 21). As Massachusetts and the city of Boston battle the current fiscal crisis, the fragility of the school’s turnaround is evident. While great things are happening, those connected to the school fear an inevitable slide as the school’s needs begin to appear less pressing, and money and other resources move elsewhere to deal with whatever crisis commands public attention. “Making urban school systems work for urban kids is so doable,” contends Leonard. But this is a tough goal to accomplish with limited resources.

As of September 2002, the Burke lost eight of its “extra” staff, and the current administration is wondering how the school can continue to do more with less. As Leonard said, “If you do the math, we know how to destroy the schools, and we know how to fix them.” Unfortunately, doing more with less is the kind of mathematics problem that even Mr. Dixon’s AP Calculus students can not solve. *

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Public schools need to equip students with the technical skills that are key for future economic growth.

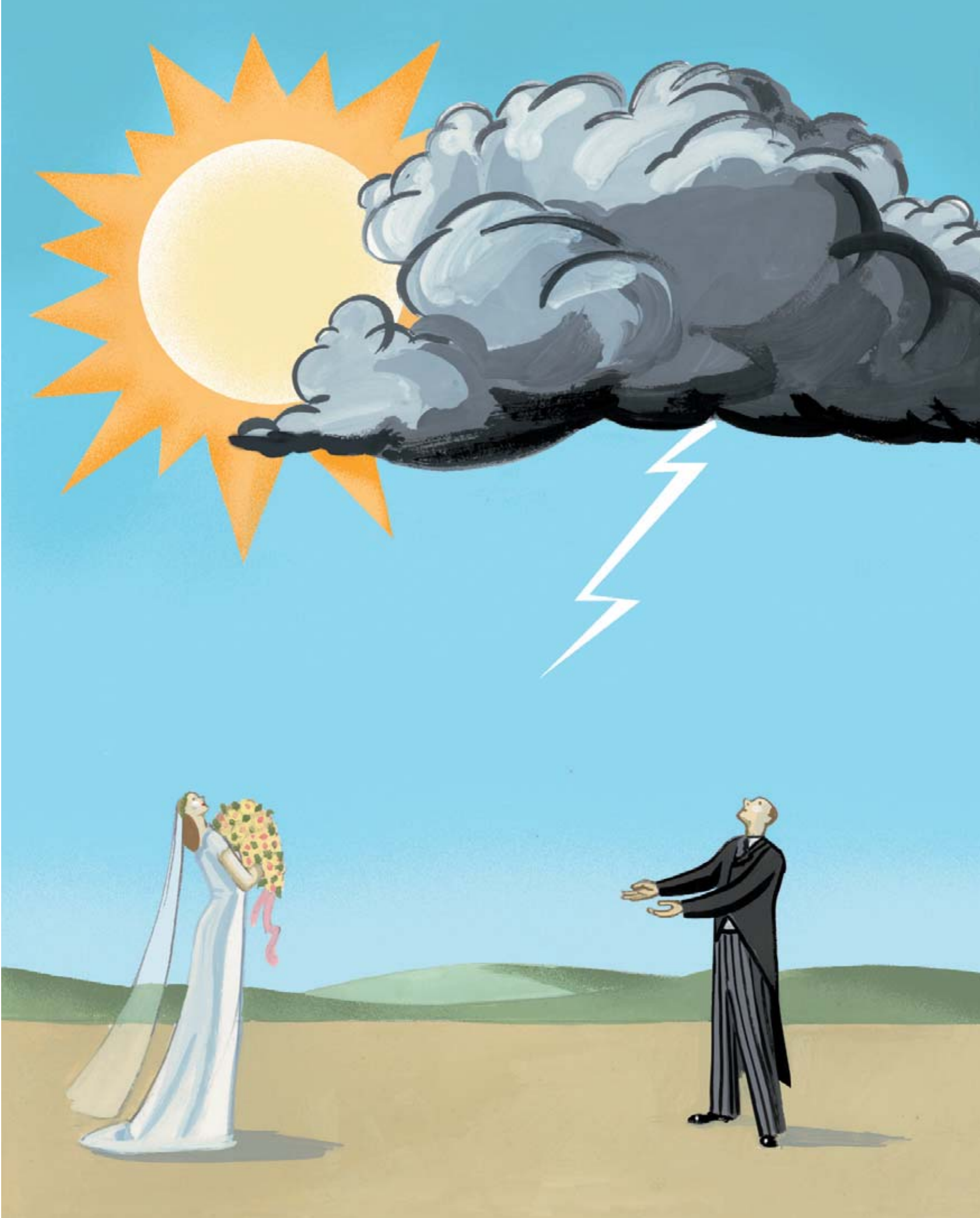


Chances

True romantics would say that marriage is not something that can be modeled with equations or predicted from data. It is due more to pheromones than formulas, more to the alignment of the stars than the alignment of economic incentives. Social scientists need not tread here, for there is nothing they can explain.

But if it were really up to chance alone, it would be amazing if any couples ever met. Chance might explain which particular hydrogen and oxygen atoms are attracted to form water, but it's not enough to explain human chemistry. Indeed, the history of marriage is a history of the influence of social norms and economic conditions on people's behavior, not a history of chance encounters. Social and economic factors have always set the

aren't





stage for whom people marry, and for whether they marry at all. The pheromones take over from there.

THE HISTORY OF GETTING HITCHED

Every human society employs something recognizable as marriage to bond its members into families (though not always into monogamous ones) and to establish economic rights. Even in the earliest societies, the economic advantages of living in families were clear. Not only could two live more cheaply than one, but husbands and wives could specialize in different tasks, making household production more efficient. This made it more cost-effective to produce and rear children and helped perpetuate the species. But the social and family ties created by marriage were equally as important for early societies' survival. Because their environment was so perilous, the mutual obligations of kinship provided an advantage to help them survive. Marriage ensured that family members would be taken care of even when they could not provide for themselves, and it established the rules by which property would be inherited. Any role for love or chance in initiating relationships was subjugated to the needs of the group. Making a match that would help society survive was more important than whether the two individuals involved actually felt an emotional connection to one another.

Even after day-to-day survival became less precarious, traditions of brideprice (a payment from the groom's family to the bride's) and, more commonly, dowry (a payment from the bride's family to the groom's) existed for centuries to compensate families for the loss of a productive member of the household and to augment a potential mate's economic value in the

We once married for the economic advantages of family life, but today marriage is about more than money

marriage. Lower- and middle-class girls in early modern Europe would often start working as maids or cooks as adolescents and save for a decade or more to create a substantial-enough dowry for marriage. Marriages typically occurred when people reached their mid to late twenties and had established themselves well enough economically to help support a family. Similarly, marriages among royal families at that time were essentially business transactions, cementing political alliances and ensuring heirs.

As Western societies have moved from a group-oriented to an individual-oriented form of social organization, though, so too has our concept of marriage moved from a purely economic and social relationship to an increasingly personal and emotional one. Dowries have been extinct in the Western world since the mid-nineteenth century—brideprices much longer. Even the thought of a prenuptial agreement is distasteful to many. And while early marriages were often made solely on the basis of economic assets, health, and social background, today's matches usually consider love first, economics later. In a survey by the National Marriage Project, 94 percent of singles agreed that "when you marry, you want your spouse to be your soul mate first and foremost," and 82 percent felt that "it is unwise for a woman to rely on marriage for financial security."

WHAT'S THE ECONOMY GOT TO DO WITH IT?

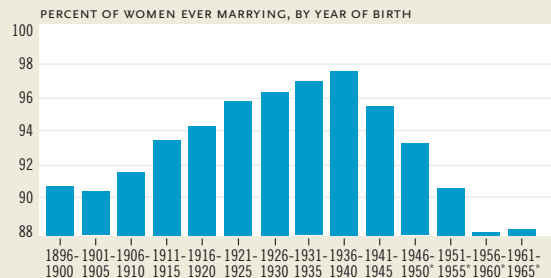
Though we may not talk about marriage as an explicitly economic arrangement any more, the economic underpinnings of the union still remain. Most obviously, marriage as a legal status provides numerous economic rights. In many states, married people co-own each other's property, even if it is listed in only one person's name. They can automatically inherit property from their spouses without paying inheritance taxes. They can sue for support after divorce and claim their deceased spouse's Social Security payments. And many employers offer benefits like health and life insurance to spouses in legally married couples, but not to their cohabiting counterparts.

The relationship between economics and marriage today, though, doesn't end at legal rights and responsibilities. No matter what the economic situation, the vast majority of us eventually marry. But feeling capable of the financial responsibility of maintaining a household, and especially of rearing any potential children, is an important reason we head to the altar. Likewise, diminishing economic opportunities prevent us from imagining ourselves as married or from aspiring to marriage. As a result, bad economic times can lead us to alter our expectations for our mates' characteristics, to forestall marriage, or to forego it entirely.

For instance, only 91 percent of women born at the turn of the twentieth century ever married, according to a recent study by sociologists Joshua Goldstein and Catherine T. Kenney (see

MAKE ME A MATCH

Though most people eventually get hitched, the marriage rate depends on the economy; the post-World War II economic boom yielded a bumper crop of marriages among those born in the 1930s.



SOURCE: Data from Goldstein and Kenney, "Marriage Delayed or Marriage Foregone? New Cohort Forecasts of First Marriage for U.S. Women." *American Sociological Review*, August 2001

chart). While there were plenty of men relative to women when this cohort came of age, the transformation from an agricultural to an industrial economy dampened marriage rates. Wives played a vital role in the economics of subsistence farm families, handling child-rearing and household tasks while husbands tended to crops. But in an industrial economy, they were an economic liability. Women's household labor did not bring cash into the household, and social norms against women working for pay kept more than 80 percent of them out of the labor market. Furthermore, as industrialization progressed and farmland turned over for development, there were fewer opportunities for young men to own their own farms. Those that worked in factories or as hands on others' farms were often expected to contribute some of their earnings to their parents' households. Young men thus had both less need of a farm wife and less sense that they could support a family on their own.

In comparison, the economic boom after World War II coincided with extremely high marriage rates. Of the women coming of age during this era of soaring economic growth and abundant job opportunities, 97 percent eventually married, a historic peak. People also married younger than ever before, at an average age of 21 for women and 24 for men. Marriage rates peaked partially because the supply of available men was roughly equivalent to the number of available women, making it easier for everyone to find a mate. But the economic bounty of this period also meant that for many families, a husband at work earned enough to support a wife at home, making the financial tradeoff of women staying out of paid work less costly. If ever there were a heyday for marriage in America, this was it.

At the turn of the twenty-first century, marriage rates are much the same as they were 100 years ago. Women born between 1961 and 1965 have an 89 percent chance of marrying at least once. The socioeconomic factors behind the downward trend in marriage rates since the 1950s are complex and multifaceted. Because of changes in immigration patterns, reductions in women's mortality, and other factors, the number of

available men relative to available women has declined substantially over the last century. Today, on average, there are 86 single men for every 100 single women aged 15 and over in the United States. These aren't great odds for single women, and they get worse as women age since women tend to live longer than men. Among those age 60 or older, there are less than half as many single men as single women. In addition, women's economic position has improved relative to men. More women than men have enrolled in college every year since the 1980s, and labor force participation rates for women in their mid-20s to mid-40s have skyrocketed from 30 percent in 1940 to 77 percent in 2000. At the same time, men's labor force participation rates have fallen and their wage growth has been slow, particularly for low-skill workers. (Low-skill jobs like machine operators and laborers have seen a 6 percent real decline in weekly wages since 1985, while managerial and professional wages have increased by 6.5 percent.) All these factors have combined not only to reduce the total number of marriages, but also to increase the age at first marriage. Today, on average, women marry at 25, men at 27—the oldest age in American history.

In addition to generational shifts in marriage patterns, differences in economic status exert a surprisingly large influence

on people's marital choices even within the same generation. While highly educated and high-income people tend to delay their marriages, they are the most likely to eventually marry. Data compiled by the National Center for Health Statistics show that in any given year, there are three times as many marriages among col-

Bad economic conditions or an imbalance of men and women can delay or prevent marriages





lege graduates as among high school dropouts. Only 11 percent of the poor marry in any given year despite the fact that 14 percent of the population lives below the poverty line. Blacks, who disproportionately fall at the low end of the economic distribution, have experienced particularly large drops in their marriage rates in the last several decades. While in 1980 just over half of all blacks had wed, by 2000 this had decreased to 42 percent—almost twice the rate of decline for whites. At age 40, 90 percent of whites have married at least once, but almost 30 percent of black men and 25 percent of black women still have never married.

BIRDS OF A FEATHER

Getting married requires more than just a healthy economy, a decent job, and an ample supply of potential mates. It also requires two individual people to meet, interact, get along, and ultimately determine that they want to spend their lives together. But the kinds of people we meet are defined in large part by our social environment and social norms and thus tend to be similar to ourselves. For example, though there are always a few May-December romances, most of us end up marrying someone within a few years of our own age. Among first marriages, wives are on average only 2.1 years younger than their husbands; among second marriages, 3.4 years. One reason is that a large age gap between spouses is considered unusual, even suspect, especially at younger ages. Another is that so many of us meet our spouses in school or in our first few years of working, when we tend to be surrounded by people about our same age.

Likewise, spouses today also tend to have similar levels of education, although this has not always been the case. In the

The more education we have and the more money we earn, the more likely we are to eventually marry

1930s, most people married others of the same schooling level, mainly because so few people had more than an eighth or ninth grade education. But by the 1960s, it was common for a husband to have significantly more education than his wife, since men's educational opportunities had outpaced women's for several decades. More recently, women's school attendance has surpassed men's, especially for post-secondary education, and less time tends to elapse between the end of school and the decision to marry. As a result, finding a partner of the same education level is easier and more common than it used to be. Over half of existing marriages involve spouses with identical educational backgrounds, as compared to 44 percent in the 1960s.

Historically race, ethnicity, and religious affiliation were extremely important factors for establishing who could marry whom. Indeed, racial intermarriage was still illegal in 16 states until 1967, when a unanimous Supreme Court decision declared such laws unconstitutional. Even today many people still hold strong sentiments against interracial marriage. Though more and more couples intermarry each year, still less than 3 percent of marriages in 2000 were interracial. Among minority groups,

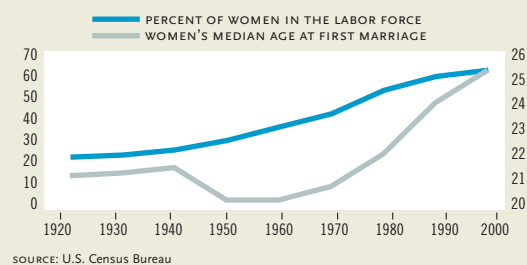
blacks are by far the most likely to marry within their racial group—95 percent of blacks marry other blacks, as compared to 65 percent of Hispanics and 75 percent of Asians. Similarly, 68 percent of Jews and 70 percent of Catholics are currently married to others of the same faith, although these rates are likely to decline since only 42 percent of today's singles feel it is im-

portant that their spouse is of the same religious faith.

The definition of an "appropriate" mate is slippery, however. When there are comparatively few people of our own age, race, or education available in the marriage market, we are more inclined to select mates dissimilar to ourselves. A recent study found that a woman was 20 percent more likely to marry a man with a different educational background from herself in marriage markets where there were relatively few similarly educated men. Another reported that blacks were more likely to marry other blacks when they lived in states with larger black populations (and hence more potential same-race spouses).

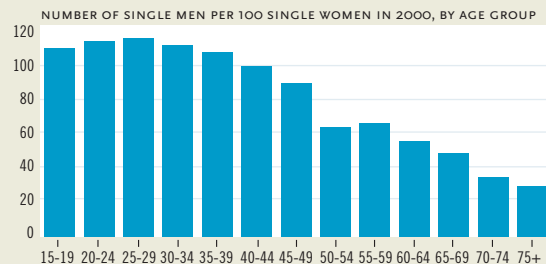
WAITING GAME

As women have increasingly joined the labor force, they have also delayed marriage until establishing their careers.



OUTNUMBERED

Because men tend to die younger than women, the number of available men relative to women starts to diminish around age 25. By the golden years, there are almost twice as many women as men.



SOURCE: U.S. Census Bureau

THE MEET MARKET

The single readers out there may now be wondering where exactly we meet these demographically determined mates. As their mothers probably told them, one of the best bets has always been through social organizations like school, work, church, community groups, or family and friends. Institutions like these facilitate our desire to marry someone like ourselves: schoolmates are by definition people of roughly the same educational level, church members share the same faith, and so on. Our neighborhoods are also ripe with opportunity, since our neighbors tend to be economically and socially similar as well.

But many singles have come to feel that the traditional methods are less viable these days. On the one hand, work and school are still major pieces of our social fabric. School attendance rates are at an all-time high, and those not in school spend more time at work than ever before. But these institutions also demand a lot of us. The more hours we work or study, the less time we have for socializing and getting to know potential mates outside of these settings. And other social institutions seem to be on the decline. We join fewer social groups, participate less in community activities, and socialize with our neighbors less frequently than we used to. The proportion of people attending church less than once per year has increased from 21 percent in the 1970s to 30 percent today, according to the General Social Survey. And 28 percent of us report never spending a social evening with a neighbor. Our desire to get married is no weaker, but with fewer traditional institutions to facilitate a match, it's no wonder so many feel that finding a spouse has become harder than it ever was.

But things are starting to change. Old institutions are adapting to our new social environment, and we are creating new connections to other people every day—just not in the places we used to look for them. For instance, one rabbi in-

vented the idea of speed dating when he noticed the dating difficulties of the singles in his congregation. A group of equal numbers of men and women participate, with each person going on a series of seven-minute “dates” with the others in the group. Afterwards, everyone rates their preferences, and those participants who express mutual interest are put in contact with one another. Not only is this a quick way to meet lots of potential dates—in seven minutes we can get a pretty good sense of whether we’d like to get to know someone better—but it also helps break down social barriers between people where just attending services together (or, for that matter, seeing each other in the grocery store) might not. No wonder speed dating has spread into other churches and social organizations, and even adult education centers.

Internet technology has also proven to be a boon to singles looking for mates. Many Internet service providers include “chat rooms,” in which people can interactively discuss their shared interest in dog shows, sushi, or James Bond movies; email distribution lists serve much the same purpose. There are

Cohabitation: The New Marriage?

Emily Post might be startled to hear it, but over half of American marriages today start with cohabitation. Furthermore, according to a recent study by Larry Bumpass and Hsien-Hen Lu, about 25 percent of the population aged 25 to 39 is currently living with an unmarried partner, and half of women in their 30s have cohabited at least once in their lifetimes. Forty percent of children will live in a household with cohabiting adults before the age of 16. It seems that what a generation ago caused titters and scorn, today few blink an eye at.

The increase in cohabitation also explains much of the recent decline in marriage rates. Bumpass and Lu find that among the group of women born between 1950 and 1954, 71 percent were married by age 25, as compared to only 52 percent of women born between 1965 and 1969. But for the formation of joint households (either married or cohabiting), the rates are more similar. Among the women born in the late 1960s, 70 percent had formed a joint household by age 25, versus 78 percent of those born 15 years earlier. Most women still start joint households in their early 20s; the relationships behind them are just less likely to be marriages.

Some view cohabitation as a substitute for marriage, obviating the need for a more formalized relationship. Others view it as a convenient living situation, saving on rent and household expenses and not indicating anything about a long-term partnership. But for many, cohabitation serves as a kind of marriage trial, an extended engagement in which the couple tests how well they get along living under the same roof. This may be why over half of cohabiting couples marry within five years; about 10 percent continue living together, and the rest part ways.

It's possible that those cohabitators who go on to marry create a stronger marital relationship because of living together first. The fact that they can obtain most of the efficiency advantages of marriage simply by living together may indicate that love and commitment are a greater part of the reason these couples marry. And spending those early years working out which way the toilet paper hangs off the roll and who gets what part of the closet helps create the building blocks necessary for the relationship to hang together for the long haul.

also more formal matchmaking sites specifically designed to bring singles together. Though they are the Internet Age equivalents of newspaper personal ads, web-based matchmakers offer much more information than a few cryptic, haiku-like words of description about potential mates. Members of Match.com, one of the largest and most popular sites, complete a 50-item questionnaire about their characteristics and their preferences in a match, as well as composing essays describing themselves and their ideal mate. They can search for potential mates by specifying criteria, such as religious preference or smoking tolerance, and by reading member profiles. Other sites match people by zeroing in on those who share interests or experiences, such as animal lovers (www.animalpeople.com), sports fans (sportmatesearch.com), or senior citizens (www.seniormatch.com).

While in the past taking out a personal ad was heavily stigmatized, today's singles don't appear to be similarly dissuaded from joining online dating services. Indeed, Match.com's revenues increased by almost 200 percent last year, spurred by exponential growth in new memberships. The more specialized dating sites have also proliferated, numbering in the hundreds, if not thousands. The Internet may yet prove to be the ultimate singles meeting grounds, offering much more information about potential mates in the early stages of a relationship than we typically can obtain in other settings.

What none of these new institutions do not do, however, is increase the role of chance in meeting our mates. While we might meet different people over the Internet or in a speed dating session than we otherwise would have, a marriage is based on much more than a date, and the regularities of social behavior will still influence this important decision. We will still want to get married when it seems financially feasible to support a family, and we will still want to marry someone we feel compatible with, who will likely be someone like ourselves. Indeed, it would be surprising if the world didn't work that way—how else could we sort through all the potential mates out there? In the marriage market, demography may not be destiny, but it gets you a long way towards the altar.*

letter from Brockton, Massachusetts



The Rox play their home games at Campanelli Stadium, where comfortable seats, good sight lines, and a sense of intimacy let fans feel like they are part of the action.

BY ROBERT JABAILY Marlynn is a true fan. Even when two minor league clubs are playing for nothing more than pride, she never gives up on the home team or leaves before the final out. And that, along with 500 other reasons, is why I'm lucky to be her husband. § On this particular June evening, we're headed to watch the Brockton Rox battle the Berkshire Brown Bears. Both belong to the independent Northern League, and the Rox, in their



first season, are creating quite a buzz in the old shoe-manufacturing centers and onetime farming towns south of Boston. Local papers have given the team lots of ink, and ticket sales have been brisk. The home opener sold out within five days.

Thinking we might have to scramble for seats, we get an early start for the ballpark, but a MapQuest mix-up sends us on an unplanned side trip through the backstreets of Brockton. By the time we spot the light stanchions over Campanelli Stadium, the opening pitch is less than five minutes away. So, while I try to find the three-dollar parking lot, Marlynn makes her way to the box office.

While standing in line at the ticket window, digging for her wallet, the person behind Marlynn asks her a question you never expect to hear at a ballgame: “*Did you bring a gun?*”

The middle-aged dad smiles to let her know he’s not serious, or at least not *entirely* serious. But his stab at humor raises an uncomfortable issue: Deserved or not, Brockton has a certain reputation.

The day before our game, the *Boston Globe* carried two Brockton stories: one on the city’s battle against rising crime; the other on 13 Massachusetts cities that missed out on the economic boom of the 1990s, which, in a way, was more disheartening than the crime story. After all, if a red hot economy isn’t enough to boost a city’s fortunes, what is?

But if Brockton isn’t exactly *Our Town*, neither is it New England’s version of *Blade Runner*. A healthy assortment of small businesses and a fair number of family-owned restaurants line its main streets. And in the neighborhoods, people are working on their houses, watering their tomato plants, relaxing in lawn chairs, playing cards (or dominoes), and taking their kids to buy ice cream.

True, the factories and machine shops that gave this place the nickname “City of Shoes” are long gone, but Brockton still has a thing or two going for it. An ample mix of good-quality housing and a new commuter rail line are making it a more attractive alternative to pricier metro Boston communities.

And now Brockton has the Rox, too. The Northern League’s newest franchise could be one of the most exciting things to hit this sports-mad city in a long time.

For starters, there’s the new ballpark. Named for the Brockton-born builder whose \$2 million gift helped make it a reality, Alfred Campanelli Stadium is a great place to watch

baseball—4,750 comfortable seats, good sight lines, and a sense of intimacy that lets you feel like you’re part of the action.

But more than that, the \$17 million project is a sign that people are still willing to bank on Brockton’s future. In addition to the Campanelli money, the Commonwealth of Massachusetts came up with a \$6 million grant, the City of Brockton approved an \$8 million loan package, and the Northern League kicked in \$1 million for stadium equipment—with little of the acrimony that often surrounds publicly funded stadium projects.

In fact, the only hint of controversy has been over the team’s name, which struck some people as a little too “out there.” But after you hear it a few times, the name just seems to fit. It’s upbeat and contemporary—“Brockton Rocks!”—yet it also recalls the city’s past by honoring the memory of native son Rocky Marciano, who punched his way to the heavyweight championship in the 1950s. Even the spelling R-O-X is a nod to that “other” Boston-area team—a playful jab that’s in keeping with the Northern League’s free-spirited approach to pro baseball.



Then there are the antics between innings: Tonight,

Established in 1903, the Northern League is a good match for Brockton—both have seen their share of ups and downs. The league had gone dormant for the third time when a handful of baseball-loving mavericks revived it in 1993 as a fan-friendly alternative to Major League Baseball. Its 18 teams have no ties to the majors, which means two things: They get no subsidy from a major league parent and they can’t afford to sign top minor league prospects.

So, what do they do? They make poverty a virtue. There’s a league-mandated salary cap of \$87,500 per team, with most players earning anywhere from \$800 to \$3,000 a month.

But there’s one thing that’s never in short supply at a Northern League game: fun.

Campanelli Stadium may not be the place to go if you’re trying to dazzle a *Fortune* 500 client. Nor is your date likely to be impressed with the fact that a 24-ounce beer sells for just \$3.75. And if you’re hoping to see flawless baseball, you probably ought to look elsewhere. But if you’re looking to enjoy yourself without running your credit card balance to

the max, you won’t be disappointed.

Even on a Tuesday night, more than two-thirds of the seats are filled and the place has a homey, neighborhood feel to it. Lots of fans are saying hello to one another, and they all seem to be having a good time—which is exactly what the Northern League tries to encourage. Funhouse mirrors at the restroom entrances are a nice touch; so are the concession stand menu boards that advertise “Pan-seared Tuna—Tomorrow’s Special” and “Eggs Benedict—8:15 to 8:30 a.m.”

And if there aren’t any marquee players in the Rox dugout, there’s at least one big-name celebrity who shows up at the park from time to time. Bill Murray—yes, *that* Bill Murray—is the team’s official director of fun and part owner. You won’t see him at most of the games, but his picture is in the souvenir program; and he was on hand to save the day when wet weather washed out the Rox’s Brockton debut.

Then, of course, there are the antics between innings. Tonight a kid named Patrick dons a pair of baggy trousers and wins a



a kid catches a wiener on the fly

Kayem Hot Dog hat when he catches a catapulted wiener on the fly. Midway through the seventh inning, a guy struggles mightily to knock down a cluster of five-foot-high bowling pins with a beach ball; and finally, with the encouragement of Rox manager Ed Nottle, he takes them all down with a running swan dive. Later on, two Rox employees dressed as “Men in Black” climb atop the dugouts and throw candy to the fans. It’s all a little lame, but that’s part of the attraction. Northern League ballparks are an oasis for the *unhip*, and I say that ever so gently and without a trace of irony.

But don’t get the idea that Rox games are carnival acts masquerading as sport. The players are pros who take their craft seriously. Some are in their early 20s and brimming with optimism; others, like shortstop Saul Bustos, are over 30 and hoping for one more shot at making it to the majors. Bustos began his pro career with the Chicago Cubs farm system in 1994 and chased his dream for nearly eight seasons with a string of Single A and “indie” teams. Then, midway through the 2001 sea-

son and three months shy of his 29th birthday, he decided to hang up his cleats. But now he’s back doing the thing he loves, and doing it well enough to be a starter on the Northern League’s Eastern Division All Star team.

Tonight’s game also gives Boston-area fans one more opportunity to see George “Boomer” Scott. Older Red Sox rooters have fond memories of the Boomer from his playing days as a first baseman on the 1967 “Impossible Dream” team. Now he’s managing the Berkshire Bears, and in the seventh inning when he ambles out of the dugout to argue a call, the fans give him a resounding cheer after the umpire runs him from the game.

The evening ends happily in a 4-2 Rox victory; and as the crowd heads for home, the public address announcer reminds everyone that Sunday will be Family Funday with free face painting

and a chance for kids to run the bases after the game.

On our way back to the car, Marlynn and I do the usual post-game wrap-up. Maybe this wasn’t the best baseball we’d ever seen, and maybe the game didn’t seem to mean as much as a late summer showdown between the Sox and Yankees. But as always, we’d stayed until the last out, and we’ll probably come back because when you get right down to it, none of the games, not even the “big ones,” mean anything more than what you bring to them. And in the end, maybe the best thing about a game is that it gives you a good excuse to sit outside on a summer evening and pass a few pleasant hours in the company of people you like, or, if you’re *really* lucky, in the company of people you love. ✱

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Our wedding traditions haven't changed much over the years. Neither has whom we marry. *Page 24*

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