FEDERAL RESERVE BANK OF MINNEAPOLIS

JANUARY 2011
VOL. 23 NO. 1

fedgazette
Regional Business & Economics Newspaper

minneapolisfed.org

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Public pensions: Feeding, and fixing, the sausage machine

Many public pensions are underfunded. Does that matter?

By RONALD A. WIRTZ
Editor

Most things in life have simple rules.

For example, doctors recommend a few things a person can do to live a healthy life: Eat your vegetables. Get eight hours of sleep. Drink plenty of water. Do 20 minutes of vigorous exercise at least three times a week.

There's nothing particularly onerous about any of those, and yet people skip out on them with regularity, and doing so is easy to rationalize: Work has been a bear. My knees hurt. Don't french fries and coffee count? *Life is busy.*

Simple rules also apply to the yawning concerns of public pensions. Though certainly less familiar (or memorable, for that matter), there are some basic rules that help keep public pension plans on the right path: Make the necessary contributions every year. Don't promise benefits that you can't guarantee with assets. Align fiduciary responsibilities with decision-making. Don't chase investment yield. Spread and share risk. Plan for a rainy day.

And as with lifestyle rules, many local and state pension plans often aren't following these rules—or aren't allowed to—and so are paying the price. Almost all public pensions in the Ninth District are underfunded, some to the tune of hundreds of millions, even billions, of dollars—all of which is backed in full faith by taxpayers. The two dozen largest pensions in the district are underfunded by at least $20 billion, and the shortfall is likely to get worse before it gets better.

The most immediate source of the problem has been poor investment returns during the financial crisis, depleting pension assets rather than growing them. But the problem is both more subtle and more chronic than that. Public pensions exhibited signs of stress before the recession—outlined and highlighted in the May 2006 *fedgazette*—foreshadowing much of the current difficulty. Many plans haven't been receiving the necessary payments. Past investment gains were shoveled into higher, guaranteed benefits. Plans failed to spread risk among stakeholders or provide escape hatches if—and now, when—funding ratios plummeted. *But pensions are long term. They'll bounce back. They always do.*

The severity of the problem is hard to gauge exactly; we're talking about predicting the future, and few plans are imminently insolvent. But many have crossed an unofficial line in the sand regarding their financial health. Much of the problem will ease if investment returns jump back quickly and robustly. But if they don't, then problems will compound, and the fiscal tightrope already being walked by state and local governments will become more precarious.

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Pensions from page 1

Pension defaults are virtually unheard of—so far—because the sponsoring governments themselves would have to declare bankruptcy before they skip out on legally guaranteed benefits. Instead, poorly funded plans get bailed out—stabilized with an infusion of tax dollars and sometimes subsumed by larger plans.

The good news is that lawmakers have taken unprecedented actions to fix problems. The bad news is that a costly pension system will get even more costly—and that's if the fixes work. Most of the repairs to date involve significantly higher contributions from local and state governments (as well as employees) at a time when governments (and households) are under fiscal duress. Plans are only starting to address the fundamental fiduciary miscalculations that have put many of them in their current spot.

(Note: This article will focus only on retiree pensions. Unfunded obligations for retiree health care and other post-employment benefits are similarly significant and will be the focus of a separate future article in the *fedgazette*.)

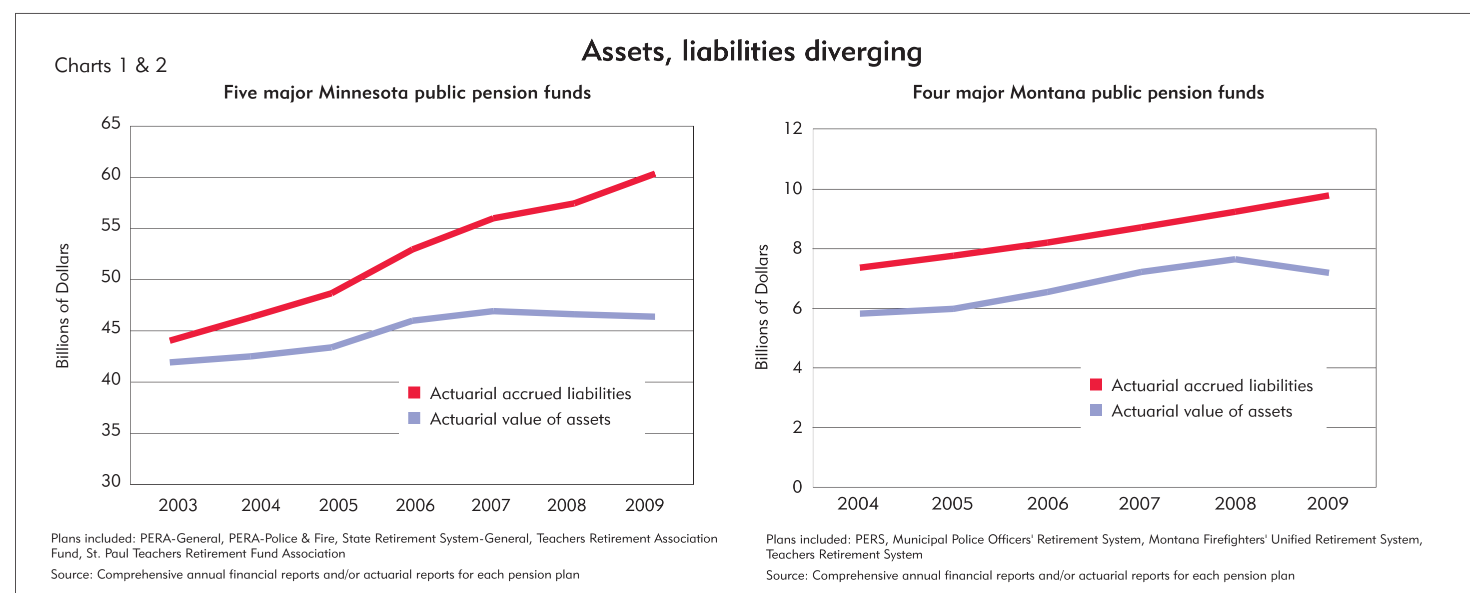
Pension basics

Public pensions are familiar, yet obscure, to most people; they know what pensions are, but many don't know what's under the hood, so to speak.

Public pension plans come in many designs and colors. Some cover only certain types of workers—like teachers, corrections officers or firefighters. Some cities sponsor their own plans, but most choose to enroll their workers in state-sponsored plans. Still others, like the Wisconsin Retirement System, cover all government workers in the state, save for workers in the city and county of Milwaukee. The smallest plans have assets of a few million dollars; the largest, WRS, has assets and liabilities of almost $80 billion.

The financial mechanics of a pension plan are pretty straightforward. Every paycheck, the employee and the employer set money aside for the employee's retirement. These regular contributions are invested so that they grow over time. When the worker decides to retire, this money funds a monthly check (called an annuity) that he or she receives until death. This simple system can work well, in theory and practice.

But underlying this simple, even elegant system is a connoisseur's sausage-making machine, because each pension plan has innumerable moving parts that have to fit together to run smoothly and produce the desired result. Some are rules: how long you have to work before you can retire, how much each year of service earns you in retirement and how your final salary is calculated.



Other important parts are actuarial assumptions that help estimate future receipts and payments over time because pension managers have to know how much a worker's retirement annuity will cost (referred to as liabilities). So plans identify a basket of variables that affect how much pension liabilities will grow, such as average work tenure and retirement age, likely pay increases, inflation rates, how long workers will live in retirement and myriad other considerations.

Taking both rules and forecasts into consideration, plans can get a decent idea of how much money they will need in the future (usually 30 years out) to stay solvent.

In other words, pension plans have to painstakingly gaze into a crystal ball with multiple viewfinders. Plans chew through mountains of actuarial data—statistics of risk and probability—to guide their decision-making, but predicting the future isn't easy. That's why there is some wiggle room in a plan's funded ratio—the percentage of actuarial (or projected) assets versus liabilities. It's generally agreed that plans need not be 100 percent funded at all times; fluctuations occur for a variety of reasons, and corrections often follow. It's more important over time that a plan's assets slope at a trajectory similar to its liabilities so that it can afford to pay annuity checks in perpetuity.

And, in a nutshell, that's the problem facing many pensions today. Pension liabilities have been rising steadily, while pension assets have mostly flattened or declined (see Charts 1 and 2). Across two dozen public pensions in the district, including the largest ones in each state, unfunded liabilities have reached about $20 billion (in fiscal year 2009, the most recent year available for comprehensive plan data). If not for methodological oddities (for example, Wisconsin uses a different, but valid, costing methodology than the one used by most plans), unfunded liabilities would be about $10 billion higher.

A funded ratio of at least 80 percent is a fairly crude, but widely accepted benchmark for pension health. Not including the WRS (it's almost as large as all other pension plans put together, and technically fully funded), 23 pension plans across the district had a cumulative funded ratio of 78 percent as of fiscal year 2009 (see Chart 3).

Underfunded plans run the gamut from slightly malnourished to starving; the general plan for the Minnesota Public Employees Retirement Association—covering local government employees, with more than 200,000 active and retired members—is 70 percent funded; the plan for nonuniformed workers in Minneapolis stands at 56 percent (and is closed to new members). The statewide plan for Montana police is 62 percent funded; the pension for city employees in Fargo, N.D., is 57 percent funded. In maybe the most ironic case, the pension for Minnesota legislators is only 31 percent funded.

Since 2001, most large pension plans in the district have experienced a significant drop in their funded ratio of at least 10 percentage points and often much more (see Chart 4). Worse, unfunded liabilities are likely to grow in coming years, pushing funded ratios lower before any fixes can gain traction.

The heart attack

How pension funds got into this position is both simple (they got killed in the stock market) and complex (remember the sausage machine).

First, the easy and painful part. One of the most noteworthy actuarial assumptions in a pension plan is the return it expects to earn on invested assets (also called the discount rate because plans discount future liabilities as assets accrue). Most public pensions nationwide use a return benchmark of 8 percent, though they vary higher (Minnesota's statewide plans use 8.5 percent) and lower (7.75 for the South Dakota Retirement System and several plans in Montana).

This assumption is noteworthy because the return on invested assets over 30 years tends to be very volatile, and small differences in the assumed return—say, between 7.5 percent and 8.5 percent—make a big difference in the calculation of unfunded liabilities. Many pension plans will be funded if they can achieve 8.5 percent returns, on average, for 30 years. But that's a big and costly "if" because unfunded liabilities accrue if returns fall short, even if everything else in the sausage machine is running perfectly.

fedgazette
FEDERAL RESERVE BANK OF MINNEAPOLIS
Regional Business & Economics Newspaper
ISSN 1045-3334

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E-mail: letters@mpls.frb.org
Internet: minneapolisfed.org

One of the Minneapolis Fed's congressionally mandated responsibilities is to gather information on the Ninth District economy. The *fedgazette* is published quarterly to share that information with the district, which includes Montana, North and South Dakota, Minnesota, northwestern Wisconsin and the Upper Peninsula of Michigan.

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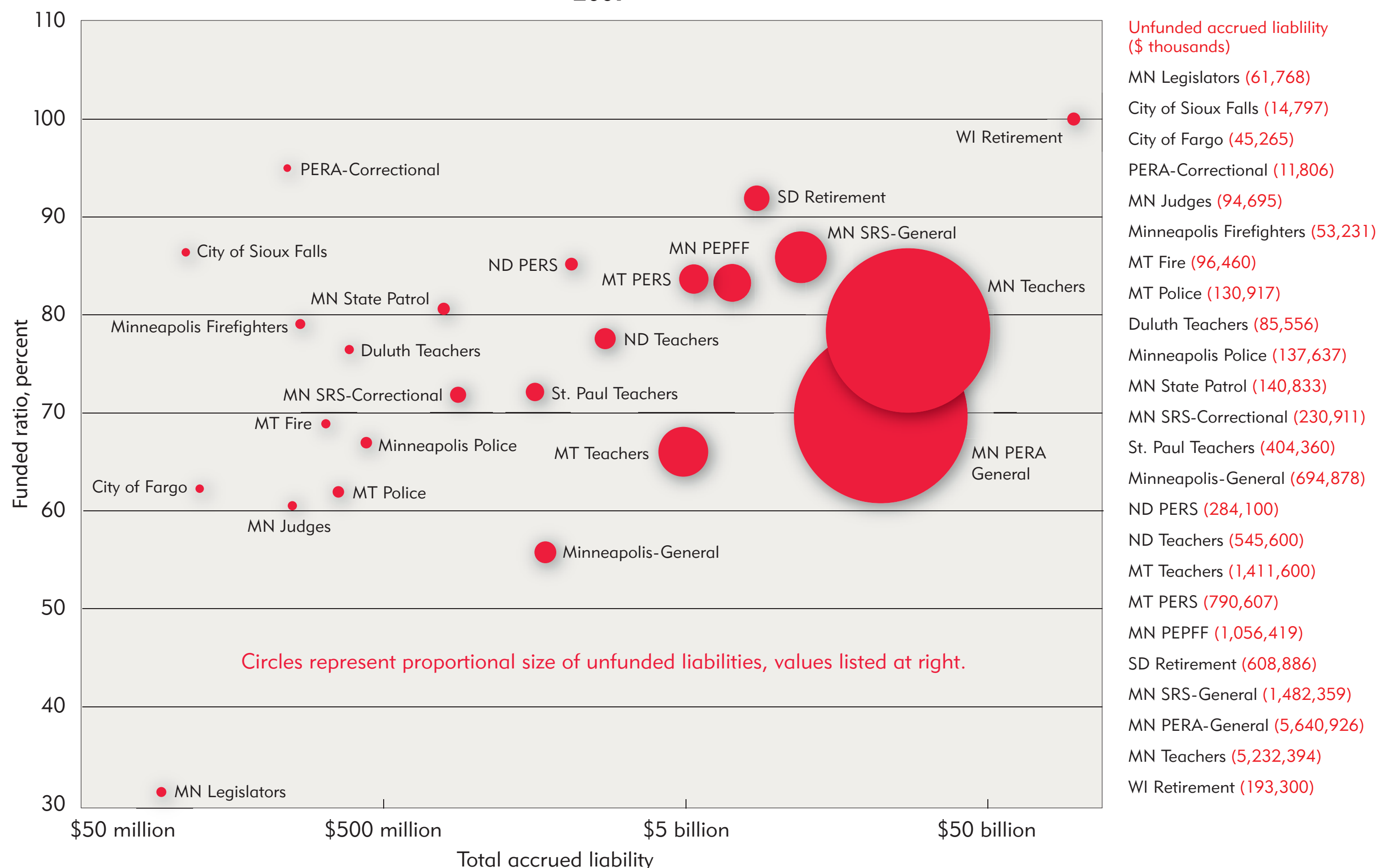

Pension advocates say the 8 percent benchmark is based on historical returns, but the fine print of any investor brochure points out that past returns are not a reliable indicator of future returns. From a short-term view, that might actually be good, because the past decade has been particularly poor (see Chart 5). Since 2001, there have been four negative return years, which are a double whammy for pensions. In 2002, for example, the largest district pensions lost an average of 7 percent, which means actuarial returns fell short of their benchmark by about 15 percentage points.

Although returns rebounded strongly in the middle of the decade, the historic collapse of 2008 and early 2009 was catastrophic to pension funds (see Chart 5, and sidebar on page 5). The large majority of plans saw a single-year loss approaching or exceeding 20 percent. The Minnesota State Retirement System's (MSRS) plan for general employees has been one of the most stable and well-funded pension plans in the state. But its investments declined by 5 percent in 2008 before a haymaker 19 percent loss the following year.

Dave Bergstrom, MSRS executive director, said that in 2007, the plan's actuary ran some models showing funding levels in different economic environments. "What happened in 2008 and 2009 was worse than even their worst economic projections. … No one anticipated such a quick and sharp drop." Last year, the plan's funded ratio hit 86 percent—not bad under the circumstances, but it stood at 110 percent less than a decade earlier.

Worse, funding levels are expected to decline across the board, possibly significantly. Investment losses don't show up immediately in funded ratios because plans typically smooth returns over five years to remove volatility. That means that "there are significant investment losses yet to be recognized" as a result of asset smoothing, according to a February 2010 report on six major pension plans in Minnesota.

Though many plans have not released official returns or other financial information for fiscal year 2010, many have seen bounce-back returns of 10 percent to 20 percent. That will surely help, but preliminary information suggests that funded ratios will decline further. The Montana municipal police pension fund fell from 62 percent funded in 2009 to 57 percent this past fiscal year, with unfunded liabilities rising almost one-quarter to $163 million. An actuarial estimate last summer for the North Dakota Teachers Fund for Retirement showed that the fund's ratio fell from 78 percent to 70 percent in fiscal year 2010.

The unhealthy diet

Within the sausage machine, many moving parts influence a funding ratio. It's not hard, for example, for plans to tinker with various assumptions in ways that can hide financial problems.

One example is the amortization schedule—in essence, a future date at which the plan promises that assets will equal liabilities. The industry standard is 30 years—much like a home mortgage. A longer payment period allows for lower contributions and also makes a plan look better on paper. Among large district plans, one uses 50 years to amortize debt, and another does not amortize its debt on any time frame, which basically means it has no concrete plan to pay unfunded liabilities. Both are already significantly underfunded, but would look even worse if they followed industry accounting standards.

Poor actuarial standards are a difficult matter to corral because of their scope and complexity. While problematic, they are more likely to be symptomatic of broader, fiduciary practices at the root of current difficulties.

Two areas stand out: growth in (legally guaranteed) benefits and the failure of employers to make full pension contributions.

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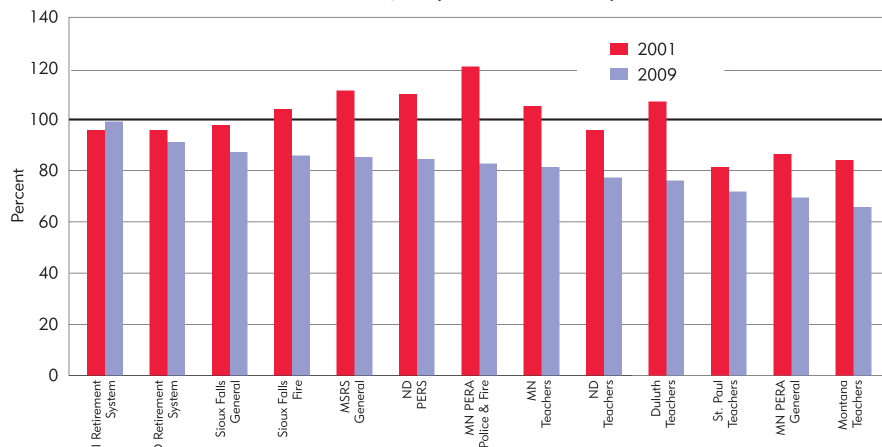
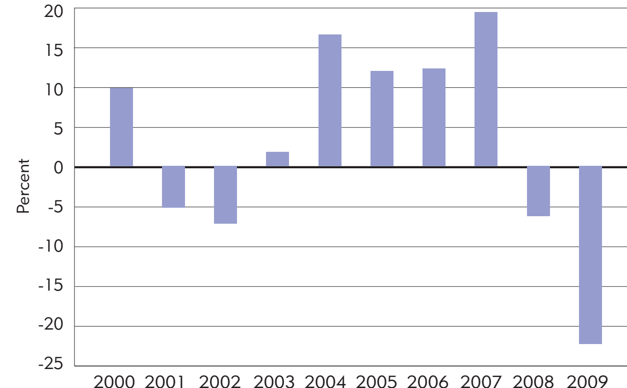
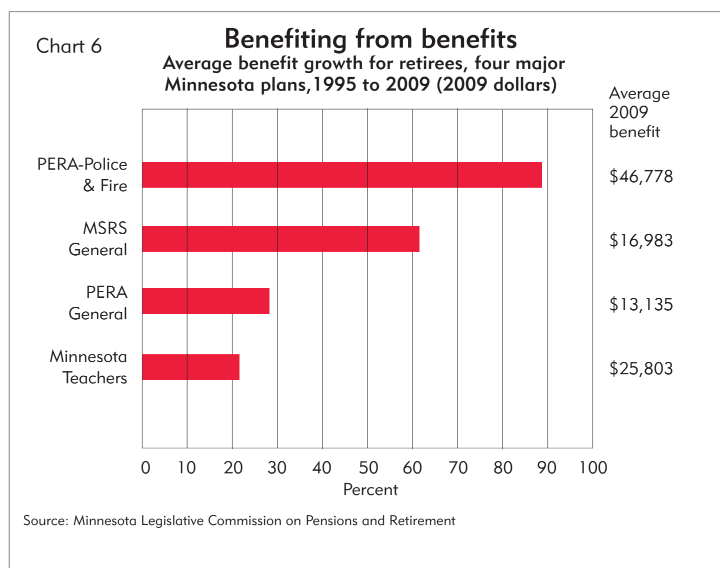




Pensions from page 3

Most plans cannot increase member benefits on their own; they must be approved by their state or local sponsor. So benefit enhancements are most often the work of elected bodies. The 1990s, in particular, saw repeated benefit increases that were supported by employee unions and politically justified by high investment returns and mostly healthy government budgets.

Benefit growth among individual plans varies in breadth and depth.



Among four major statewide plans in Minnesota, average benefits paid per service retiree outpaced inflation by at least 20 percent from 1995 to 2009. Some grew much more than that, though actual annuity levels per beneficiary vary significantly by plan (see Chart 6).

The increase in benefit levels comes from several sources. The most obvious is the increase in the so-called formula multiplier, which along with final salary and years of service, determines a retiree's original monthly annuity.

Virtually all plans have regularly increased their multiplier. The South Dakota Retirement System—one of the most stable plans in the district—acknowledged in its latest financial report that its multiplier for general members has increased 11 times since 1982—from 1.1 percent to 1.7 percent—including five times between 1997 and 2002, and a final time in 2008. In 1982, the multiplier for North Dakota's two statewide pension plans had a multiplier a shade over 1 percent. It currently stands at 2 percent. So a person today with a final salary of $40,000 at the end of a 25-year career would earn an annual pension of $20,000 (final salary × 2 percent × 25).

Whether that's too generous is a subjective matter. The larger point is that the factors used to calculate a pension have been rising. With the direct link to wages, pensions automatically rise over time as wages go up, even if the multiplier remains the same. A rise in multiplier means pensions are increasing more than wage growth.

It should be noted that public workers contribute significantly to their pensions, while private workers with defined benefit pensions typically do not. But many public pensioners also receive annual (and compounding) cost of living adjustments in retirement—typically 1.5 percent to 3 percent—while private pensioners typically do not receive this benefit. That might seem like a small financial matter, but COLAs add up. An annually compounded COLA of just 1.5 percent over 15 years pushes a $20,000 pension up by 25 percent, to $25,000. Though some public plans make COLAs on an ad hoc basis, most plans do so automatically (via statute) and regardless of a plan's financial condition.

Building an ARC

To make matters worse, governments have not been squirreling away the resources that actuaries say they should.

Every year, plans calculate the actuarially required contribution (ARC) that will help a plan maintain solvency over time. If a plan is underfunded, ARC standards call for additional, backfill payments to eventually bring assets back in line with liabilities. Think of a household with a lot of debt; ARC is like a prudent financial plan that establishes an ongoing payment schedule to steadily reduce debt over time. If a pension plan consistently meets its ARC, then its funding ratio should steadily improve, assuming the sausage machine cooperates.

Employers are not ignorant of such responsibilities, but pension costs have grown considerably, budgets have gotten tighter and other obligations compete for resources (see sidebar on pension costs, page 6). Not making those extra payments for future unfunded liabilities can be easy to rationalize.

Among five major Minnesota plans, each has a unique ARC profile. But as a group, employer contributions as a percentage of ARC has trended down steadily since at least 2004 (see Chart 7), and funded status has followed in tow. That's more rule than exception; a large majority of district pensions surveyed on this measure also failed to receive full actuarial contributions from employers in 2009 (see Chart 8). For many, this was a continuation of a trend stretching back to the middle of the decade, sometimes further.

The few plans that regularly make full ARC payments—the Wisconsin and South Dakota state retirement systems and separate plans with the city of Sioux Falls, S.D.—are legally bound to do so. Coincidentally, they are also the best-funded plans in the district.

Most plans, however, are not similarly bound. Indeed, "required" contribution is mostly a misnomer—"prudent" would be more accurate. Employers and workers are compelled to make "normal cost" contributions—the projected cost of benefits for working members, as if the plan were 100 percent funded. Usually this contribution rate for both employers and employees is set in statute as a percentage of payroll.

A decade ago, this wasn't a problem because many plans were near (or over) 100 percent funded. With fixed contribution rates, many were actually contributing more than actuarially required. In 2000, Minnesota's major pension plans paid roughly 30 percent more than their ARC said was necessary, according to the state's Legislative Commission on Pensions and Retirement.

But when plans have unfunded liabilities—particularly below 80 percent—actuaries urge additional contributions to help close that gap. But few plans are legally bound to make these additional payments, and most do not have the authority to force employers and workers to contribute more than the amount set in statute.

For an underfunded plan, failing to pay ARC is like applying more grease to the hill. The 2010 report on six major pension plans in Minnesota found that many make only statutory contributions, and "very little … can be used to pay down—or even pay the interest on—the outstanding unfunded actuarial liability amounts."

Patient, heal thyself?

From a broad perspective, the sky might be said to have some large cracks, but is not in immediate danger of falling. Most

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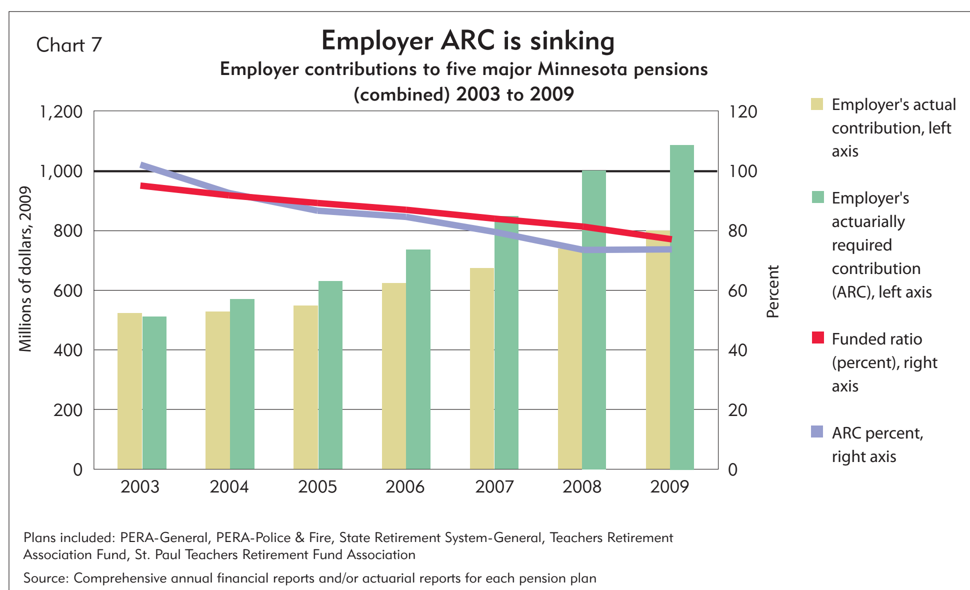
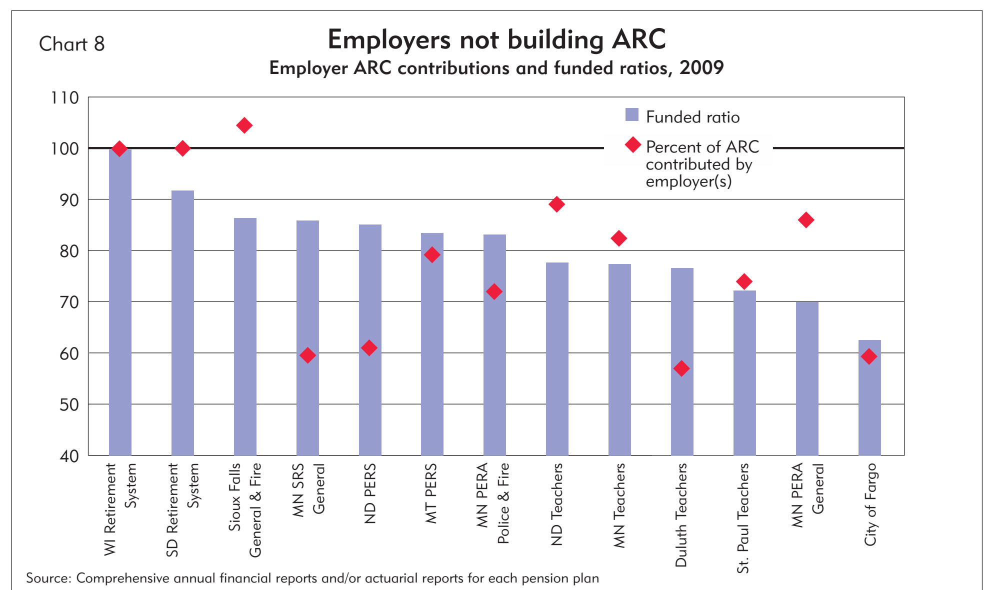




Playing catch-up, badly

Investment returns are the X factor for pensions

It's hard to overstate the role of volatile stock market returns in the current status of pension plans.

Just a decade ago, and even more recently for some, a number of state and local pension plans were fully funded, thanks to the investment boom of the 1990s. The 2001 recession threw a monkey wrench into investment returns, with most plans suffering modest investment losses two years running. Although returns in the middle of the decade were strong, the recent and huge investment losses amount to more than a monkey wrench; call it a total transmission failure.

Investment return is the magic elixir that helps generally modest contributions from employers and workers grow into lifelong retirement income. From 1990 to 2009, 60 percent of pension asset gains in the Public Employees Retirement Association of Minnesota came from investment.

But the investment knife cuts both ways, and it can be deadly. In 2007, the Montana Public Employees' Retirement System earned $629 million from investment gains—or about 82 percent of net asset gains that year (employers and workers contributed the rest). But two years later, PERS saw an investment loss of almost $800 million.

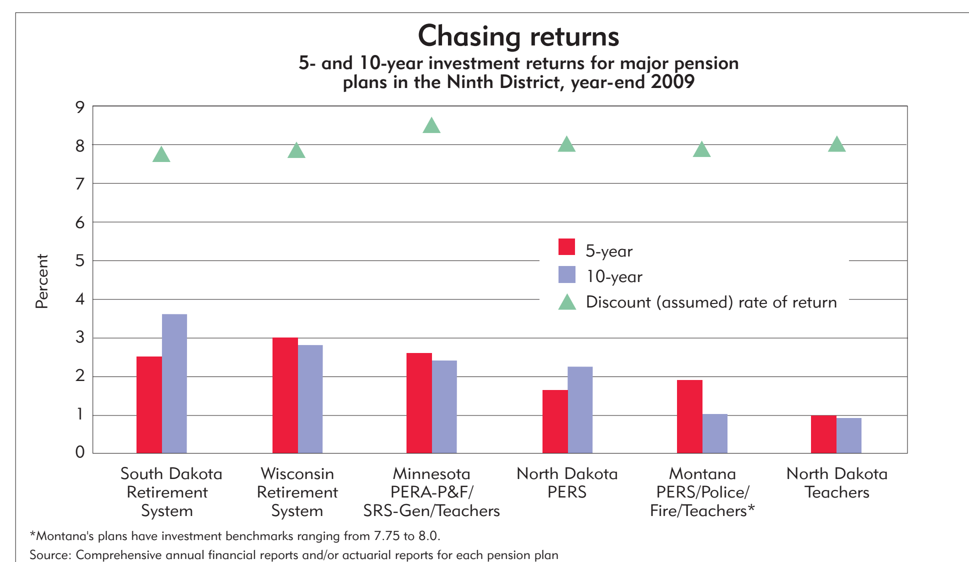
Defenders are quick to say that benchmarks are meant to be an average over time. But lean investment years at the start and end of the last decade have thrown cold water on long-term expectations. District pension plans peg investment returns between 7.75 and 8.5 percent, depending on the plan. No plan has come close to those rates over the previous decade (see chart).

Investment returns will have to do double time for a considerable period—upward of 12 percent annual gains for a decade for some plans—to achieve that rough 8 percent target. The alternative (which most plans have recently enacted or are considering) is to increase employer and worker contributions to make up lost asset growth until returns rebound to the historic trend—a realistic expectation, according to many in the industry.

"I've talked to a lot of actuaries," said one source, and they say the 8 percent benchmark "has been reinforced again and again over time."

Even if long-run rates can recover to 8 percent—hardly a given in today's economic environment—it's unclear if pensions can ride out any continued volatility in the short and medium run. The question is whether pensions can stay solvent longer than financial markets can remain out of kilter. Not everyone is so sure.

An actuarial experience study analyzes a pension's assumptions for long-term accuracy. One such study last year for the North Dakota Teachers Fund for Retirement found that returns averaged about 2 percent over the last decade, and 6.6 percent over 20 years—well short of the plan's 8 percent benchmark. It said the rates of return on equities and other assets "vary so dramatically from year to year that even a 20-year period is not long enough to provide reasonable guidance." Over a 10- or 20-year period, the report said, there was "a significant possibility that the average return will be less than 6.5 percent or greater than 9.5 percent."



How plans react in such an environment says a lot about how they view risk in fiduciary terms. The South Dakota and Wisconsin retirement systems both have comparatively low investment benchmarks (7.75 percent and 7.8 percent, respectively), and their returns over the last decade have outperformed district peers. But sources with both systems said they are at least considering lowering their benchmarks—despite the fact that both systems reported gains in the neighborhood of 20 percent in their most recent fiscal year.

That's because plans still lose when a big loss is canceled out by an equally big gain. If plans discount liabilities at 8 percent annually, staying even after two volatile years puts a fund almost 17 percent behind (after the compounding effect) its return projection over this brief period.

Unfortunately, a lower benchmark is not a realistic political choice for many plans, because the sponsor is acknowledging that assets will not grow as much as previously projected, which automatically increases unfunded liabilities, pulls down the funded ratio and exposes employers (and possibly workers) to even larger contributions. The most recent actuarial valuation for the Montana Teachers Retirement System demonstrated that lowering its investment benchmark from 7.75 percent to 6.75 percent would cut its funded ratio from 65 percent to 58 percent.

As a result, some plans are forced to keep rolling the dice, using history to help rationalize more aggressive investments to hopefully pull a pension out of its financial hole. In fact, that's what appears to have happened in response to negative investment returns during the 2001 recession.

A recent NBER working paper examined portfolio allocations and plan characteristics of 125 state pension funds from 2000 to 2009 and found that pension funds chose greater portfolio risk following periods of relatively poor investment performance. Equally important, plans with a relatively high benchmark rate "tend to choose riskier portfolios."

Place your bets.

—Ronald A. Wirtz

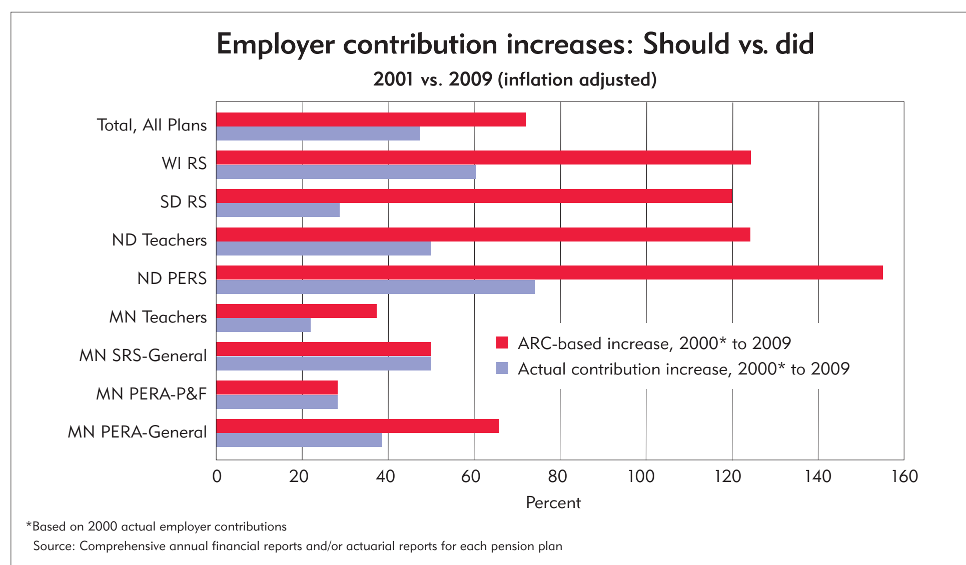
The pension bill. Ouch

As pension officials and lawmaking bodies scramble to stabilize underfunded pension plans, government sponsors and workers are laboring under the weight of steadily growing costs, which are likely to continue upward, maybe substantially.

Since 2000, many employers have seen their contributions rise by anywhere from 20 percent to 70 percent above the rate of inflation (see blue lines in chart). Yet despite these large increases, employers are still not paying what they should on an actuarial basis (via so-called actuarially required contributions, or ARC), which includes normal costs often set in state statute and additional payments to cover unfunded liabilities.

With funded ratios plummeting, ARC amounts—what employers should be paying—have skyrocketed (see red bars in chart). Minnesota's four largest plans had contributions of $778 million in 2009; based on ARC, contributions should have been more than $1 billion.

Current employees have also shared in that cost pain. Member contributions to Minnesota's four largest plans have risen by 26 percent since 2000, only slightly slower than the 33 percent increase for employers.



The load of higher pension costs could hardly come at a worse time, as state and local governments struggle with lower tax revenue. For fiscal year 2012, state and local governments face an expected budget shortfall of at least $82 billion. But they will have $38 billion less in stimulus funds to help them deal with deficits, according to a December report from the National Conference of State Legislatures.

States in turn are passing some of the deficit down the ladder in the form of lower local aid, which cuts into locals' ability to fund pension obligations. In Minnesota, final 2010 aid to cities was $55 million lower than a year earlier, reaching levels last seen in 2001; county aid this year was also cut by 15 percent (about $35 million) over last year. In Wisconsin, aid to local governments dropped by $25 million in 2010 and has been pancake flat since at least 2004.

And for a little final salt in the budget wounds, many state legislatures have recently increased contribution rates yet again for participating employers, or will consider doing so in upcoming legislative sessions. f

—*Ronald A. Wirtz*

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plans have the resources to pay benefits in the near term, and usually there is time to turn around a struggling fund.

But not always. Sometimes matters are left unaddressed for too long, and plans become a death spiral as a growing number of retirees consume a plan's assets faster than they can be replenished by contributions and investment returns. While bankruptcy is being mentioned more often—particularly in places like California and Illinois, where plans are in worse shape—it's still an extreme rarity among plans, at least so far, because it would require the sponsoring government to declare bankruptcy, which has serious financial and political considerations.

Instead, plans seek something akin to a bailout. For example, the city of Minneapolis' general employee plan could default on benefits within the decade. Last year, the plan was merged with the statewide PERA-General plan, which is good for retired members (whose benefit guarantees are financially reinforced) but considerably less good for other parties; city taxpayers face annual costs of $27 million to $35 million—for a closed plan with fewer than 200 active members and about 4,500 retirees—and the state will pitch in another $27 million in 2012 and 2013, and then $15 million every year thereafter. A few years earlier, a similar bailout occurred with the Minneapolis teachers' pension.

Without significant changes, other underfunded plans also face a sketchy future. The North Dakota Teachers Fund for Retirement was on track to go "bone dry" in about 20 years "unless we did something," according to Greg Burns, executive director of the North Dakota Teachers Association. With the fund hovering around 80 percent in 2008, employer contributions were raised by 1 percentage point, phased in over three years. But more dramatic action was needed this time around after steep investment losses. Stakeholder groups were called in, said Burns, "and we spent hours upon hours looking at the pension plan to fix this thing."

The group ended up proposing—and the Legislature will consider this spring—contribution increases of four percentage points for both employers and workers, phased in over four years, eventually pushing rates for both to between 12 percent and 13 percent of payroll. These rates are scheduled to sunset only when the plan is once again at least 90 percent funded, which is not expected until 2032, according to Burns. The plan also set higher age requirements for earning full benefits.

"Not one member has complained," said Burns, although he acknowledged "that might change" once the higher rates go into effect.

Elected bodies elsewhere are investigating their options. In Montana, pensions for teachers (TRS plan) and local and state workers (PERS) were estimated last summer to be underfunded by about $2 billion, a level that "may not amortize in any length of time without increased contributions and benefit changes or plan design changes," according to a legislative report. A special legislative committee was charged with brainstorming some solutions. It suggested two basic options, but only for new employees: going to a defined contribution plan or modifying current retirement rules with longer vesting and service requirements and lower multipliers. The matter awaits the 2011 Legislature.

Significant changes have been made to virtually all of Minnesota's larger plans. Last year, the Legislature passed a pension bill that increased contributions for both employers and employees for the larger statewide plans, some by as much as 2 to 3 percentage points, usually phased in over two to four years. There were also a number of benefit reductions, including for retirees, but these changes face a legal challenge (more on this below).

Fix, don't patch

That such drastic measures are necessary suggests that plans are missing some mechanisms that might offer better, more automatic safeguards. When plans are underfunded, corrective measures have to go through a time-consuming legislative process—which might produce a decent patch job, but often fails to address some of the underlying problems or offer mechanisms that might automatically stabilize underfunded plans before they get into serious difficulty.

There have been some recent, notable achievements on this front. North Dakota's two statewide plans now automatically raise or lower employer and worker contributions slightly in relation to a 90 percent benchmark—a novelty among many plans. All three of Minnesota's statewide funds have been given the authority to raise and lower contribution rates, rather than wait for legislative approval. Additional rules allow plans to keep a 1 percent contribution "cushion" to help weather market corrections, and restrict the use of surplus funds for new or additional benefits.

These governance changes are "very significant," according to Mary Most Vanek, head of the Minnesota PERA plan. The legislative practice of delaying contribution increases with the hopes of reaping higher investment returns in the future "was not prudent management," she said, because it abdicated a plan's fiduciary responsibility to members, employers and taxpayers. But the authority given to plans is still new, and it's unclear whether and how that power will be exercised. The recent large

increases in contribution rates were the result of legislative action.

Another safeguard that is almost universally absent is the sharing of investment risk among pension stakeholders. Over the past several decades, plans have gradually taken on more risk with investment portfolios, shifting assets out of cash and bonds and into equities in hopes of achieving higher returns. Until recently, the strategy had worked well, fueling much larger growth in plan assets than otherwise would have been achieved.

But the rarity of plan bankruptcy, along with the prevalence of bailouts, has invited moral hazard because risk has been misappropriated. Plan beneficiaries bear little risk but have enjoyed most of the benefits. Though governments have taken some funding holidays because of strong investment returns, more often those heady returns provided rationale for higher, compounding benefits. When returns stumble, employers (and by extension, taxpayers) have shouldered a disproportionate share of the financial risk. Active workers also have carried some risk, usually in the form of higher contributions. But the largest benefactors—retirees, and those close to retirement—are largely absolved of any real risk; they no longer make contributions (or soon won't), and benefits—both earned and promised—have strong legal protections.

Not everyone believes the prevailing risk-sharing arrangement is out of whack. Michael Nelson is a customer service specialist with the Minnesota Office of the Secretary of State and head of the 800-member Local 2829 union representing state employees. "I think the current risk structure is equitable, if the employer makes wise decisions when planning for future retiree costs rather than neglecting their liabilities until the plans reach crisis," Nelson said.

Some workers' unions are also taking the matter to court to repeal recent attempts to lower benefit levels. In South Dakota, a class-action lawsuit is challenging the state's cut of annual post-retirement increases from an automatic 3.1 percent to between 2.1 percent and 2.8 percent when the plan is below 100 percent.

Minnesota also faces a legal challenge to its recent lowering of post-retirement increases. The changes vary among the different statewide plans, but include a temporary two-year suspension of cost-of-living adjustments and lower future increases until a 90 percent funding threshold is attained. Bergstrom, from the State Retirement System, said it was too early to speculate, but acknowledged that "if the lawsuit is successful, it will obviously have a financial impact on our plan. Our savings will not be as great, and other changes may be necessary."

Keith Bozarth, executive director of the State of Wisconsin Investment Board, said court battles are necessary to provide some clarity to an important, but cloudy legal matter. "I don't think benefits are as ironclad as many believe," said Bozarth, adding that "litigation will be a healthy thing because it will give us a framework" to work from in the future. (For more discussion, go online at minneapolisfed.org for a Q&A with two legal experts from Minnesota regarding the legal protections and case law concerning pension benefits.)

Good and bad déjà vu

It's easy to buy into a worst-case, into-the-abyss scenario, until you step back and realize that many funds were in similar or worse shape in the 1970s and 1980s. Badly underfunded, plans shifted their focus to an investment growth strategy, and many literally grew their way out of trouble in the robust money markets of the late 1980s and 1990s.

But that strategy also has played a large role in the current predicament. With an uncertain and possibly volatile future for investment returns, the key for many plans will be to make changes that help reduce their unfunded liabilities over time while allowing them greater flexibility to adapt and reinforce their fiduciary responsibilities to both members and taxpayers. In this vein, plans in Wisconsin and Sioux Falls offer useful models (see sidebar on page 8).

Bozarth said there are many good pension plans out there, "but there are many examples of funding discipline that is not in place." That has many critics wanting to throw out defined benefit pensions altogether. Bozarth believes that is unnecessary, even rash: "The solution is responsible plan design."

Dave Stella, secretary of the Wisconsin Department of Employee Trust Funds, which administers WRS, said too much attention has been paid to poor investment returns. "We've got a slow-motion train wreck, and a lot of attention is being placed on a small part of the train," he said. Instead, he suggested that plans need to focus on governance, shared risk and appropriate benefit levels. "You can't promise benefits you can't pay for."

He also believes that many plans are now feeling the pressure necessary to make tough choices. "Crisis generates reaction, and [decision makers] won't watch the boat go over the waterfall," he said. f

Top of the pension class

Size doesn't matter. It's how you are allowed, expected and required to manage

By RONALD A. WIRTZ
Editor

If pensions were a dating game, some plans might go unnoticed. They live modestly. They don't buy on impulse. They pay their bills religiously. They prefer safety over risk. They probably wear tan sweater vests.

Yet in the pension world, this modesty would be the envy of plans across the country. While pension plans are almost universally underfunded at the moment, some plans have weathered the storm better than others.

In the district, two plans at opposite ends of the spectrum stand out: the Wisconsin Retirement System, with $80 billion in assets, and the city of Sioux Falls, S.D., which sponsors two separate plans for general workers and firefighters, and has assets of about $350 million.

In each case, these pensions are hardwired to keep fiduciary responsibilities front and center. They offer modest benefits and make required contributions that keep the actuaries happy; each has a more conservative investment expectation than its peers and a few unique wrinkles to protect members and taxpayers from catastrophic events.

Meet the contestants

In Sioux Falls, the city's latest full-year estimate put the funded ratio at about 87 percent for the two plans. While that leaves some room for improvement, the city beats the pants off most locally sponsored plans. In Minneapolis, none of the city's three sponsored plans is above 80 percent, and its largest plan (MERF, for general employees) is 56 percent funded, has unfunded liabilities of $700 million and has recently been consolidated with a state plan. In Fargo, N.D., city-sponsored pensions for general workers and firefighters are a combined 61 percent funded.

Tom Huber, Sioux Falls assistant director of finance, outlined a number of reasons why the city has managed to keep its pension upright. For starters, the city is required by state law to make full, actuarially based contributions. Unlike most plans, large or small, "when times were good, the city and pension board did not increase benefits," said Huber, adding there have been "no major changes" in the plan in at least 15 years.

Huber also noted that the city budgets very conservatively and "faces its liabilities straight up"—an approach the rating agency Moody's noted in a credit rating when the city was looking to raise money in the bond market, he added. The city amortizes its unfunded liabilities over just 14 years—about half of the amortization period for most plans. The city even started funding retiree health care before the term OPEB (other post-employment benefits) became a common part of the pension lingo. Though it only partially funds this retiree obligation, its commitment to date far exceeds that of most local plans.

"The pension board takes its fiduciary role very seriously," Huber said. "The key is to fund [pensions] before they become a crisis, so you're managing from a position of strength."

That doesn't mean things are perfect. Like elsewhere, rising pension costs are putting pressure on the budget, and the city is studying its options, including the possibility of having new employees join the statewide system. It's all part of a continual process of trying to predict the future, said Huber.

Some people call that guesswork, but the plan has been a decent soothsayer. In 2007—"before the downfall," according to Huber—the city took the prescient action of lowering its investment benchmark from 8 percent to 7.75 percent. "We got out ahead" of the market collapse, he said, because the board felt at the time that it would be increasingly difficult to consistently achieve an 8 percent return.

David, meet Goliath

The Wisconsin Retirement System (WRS) has experienced some of the same hard knocks as other plans, including a 26 percent investment decline during the financial market collapse.

Yet the plan is nearly 100 percent funded. (A technical caveat: Its high funding ratio is due partly to the fact that it uses a different method (frozen entry age) to calculate liabilities than the one used by most plans (entry age normal), according to Dave Stella, secretary of the Wisconsin Department of Employee Trust Funds, which administers the plan. Regardless, using the EAN method, the fund would have been 88 percent funded in 2009, still close to tops in the district.)

That funding stability comes from a couple of sources. The plan has the lowest multiplier of any plan in the district (at 1.6 percent per year of employment), and the average pension today runs to $1,900 a month—decent, but hardly rich.

Arguably more important is the plan's system of governance. Stella said most pension plans are very cognizant of long-term sustainability, but often have to deal with elected bodies that have very different perspectives on funding responsibilities and plan health. So WRS has features that give it special, independent authority to enforce its fiduciary responsibilities.

For example, the system is legally required to make all actuarially required contributions, according to Stella, and it carries an enforcement stick just in case. If participating local governments choose not to fork over their calculated amounts, the plan can simply grab it out of that locale's state aid. WRS also has the authority to increase employer and employee contributions without legislative approval. It did so recently, increasing both rates by 0.6 percent.

To Stella, the formula for relative stability is simple. "Governance structures are very important to success," said Stella. "Who are the fiduciaries, and do they have the authority to act? I haven't seen anyone go as far as Wisconsin has."

In fact, WRS has one wrinkle regarding investment performance that might be unique across the entire country. The plan has a 7.8 percent return assumption—roughly in the lowest third of large plans nationwide. The plan pays ad hoc annual dividends based on investment performance, but makes no guarantee on future adjustments.

In fact, the only guaranteed portion of a retiree's annuity is the original amount calculated at retirement. That allows WRS to claw back previous post-retirement annuity increases when investment returns fall. It had never used such authority until 2010, when it instituted its first ever "negative dividend" of 2.1 percent (and importantly, there have been no legal challenges). Retirees who voluntarily invested in a smaller, variable fund—which took a 39 percent clobbering—also took much larger hits to their monthly checks.

A white paper by Stella and Keith Bozarth, head of the State of Wisconsin Investment Board, which manages the plan's assets, sums up the rationale. Because investment risk and reward is shared widely, rather than focused solely on the employer, the consequences of volatile returns are also viewed differently. Conventional wisdom says employers are best able to bear the investment risk and reward over time and absorb fluctuating results. "The equation has been changed with the WRS, and the interests of the employers, employees and retirees are aligned with respect to the volatility of investment returns. As volatility increases, all three groups share the potential downside result."

In an interview, Bozarth said changing medium and long-term economic expectations have convinced the system to consider what he called "alternative portfolios," including lower return assumptions. One reason is the uncertain economic environment for investments; low interest rates translate into return on cash of "virtually zero percent," Bozarth said. To make up for that, other assets have to assume more risk, and "targeting that level of return may require taking on an undesirable level of risk."

And this mentality holds despite the fact that WRS's most recent full-year return was 22 percent. Said Bozarth, "We probably have a higher aversion to volatility than some plans do." f

Roll out the (wine) barrel

Winemaking is an emerging niche market in the district

PHOTOGRAPHY BY MARC NORBERG

By PHIL DAVIES
Senior Writer

The newest winery in South Dakota is named after a dog. Dave and Sue Greenlee launched Tucker's Walk Vineyard and Winery this summer, securing a farm winery license from the state and installing winemaking equipment on their property near Sioux Falls. The couple plans to produce 100 cases (about 250 gallons) of wine from their own grapes this year for sale at their winery—currently the garage and basement of their home. Within three years, the Greenlees hope to make 10 times that amount of wine and expand sales to local liquor stores and supermarkets.

Dave Greenlee figures the venture—which began as a hobby growing grapes in the backyard—has cost about $100,000 to date. For now, the Greenlees plan on keeping their day jobs with the U.S. Geological Survey. But if those first 100 cases find buyers, Dave, 60, envisions quitting to run the winery full time. "We're both sucked into it so far there's no turning back," he said.

The Greenlees represent growth in an emerging niche market for local food products: farm wineries, mostly small, family-owned enterprises that produce wine for sale on the premises and through local retailers. Over the past 15 years, the number of wineries in the Ninth District has increased from about a dozen to more than 70. Wineries exist in every district state and the Upper Peninsula of Michigan, making wines from whatever agricultural produce comes to hand—grapes, apples, plums, cranberries, honey, even rhubarb.

District wine production has surged as well—although the amount is still a drop in the barrel compared with the output of major wine regions such as Northern California and the Pacific Northwest.

Much of this growth stems from a horticultural innovation: the development of cold-hardy grape varieties that have made grape growing in the region a viable—if still precarious—economic activity. New grape varieties bred by university and private nurseries have allowed wineries to satisfy consumer demand for local wines. Government support in the form of legislation that gives small wineries considerable leeway in producing and selling their wares has also fostered winery growth.

Like many other businesses, district wineries saw reduced traffic and sales during the recession, and a few have closed. Some are now seeing a bounce as the regional economy recovers and consumers spend more freely in the tasting room.

But long-term prospects for this tiny industry are uncertain. Despite the advent of cold-hardy grapes, it's still difficult to make wines in the region that can compete with offerings from well-established wine areas in the United States and overseas. Startup wineries may find that the market can support only so many businesses trading on the novelty and distinctive taste of local wines.

Let's start a winery

Opening a winery is an expensive undertaking, requiring sizable capital outlays and heavy infusions of sweat equity. Equipment alone for a small winery—fruit crushers, fermentation tanks, bottling machinery—can cost $100,000, said Brad Nilles, owner of Seven Hawks Vineyards, a 3-year-old winery in Fountain City, Wis.

"A lot of people romantically think, 'I just inherited $5,000 from my grandmother; let's start a winery,'" Nilles said. "It requires a lot of work and a significant investment." Because of high upfront costs and the challenges of marketing a new product, a startup winery typically takes four to seven years to turn a profit.

These realities haven't deterred dozens of juice-stained entrepreneurs like Nilles and the Greenlees. Most of the winery growth in the district has occurred since the mid 1990s. In Minnesota, the number of licensed wineries open to the public has grown from seven in 1995 to 25 today, according to figures compiled by WineAmerica, a national wineries association. Fifteen years ago, there were no wineries in North Dakota and South Dakota, and just one in Montana; today those states are home to a total of 31 wineries. The U.P. has five wineries, all founded within the past five years.

As the number of wineries has increased, so has wine output; federal government data show that the combined wine production of four district states tripled between 2000 and 2009 (see Chart 1, page 10). Wisconsin has long been the district leader in wine production (14 wineries lie within the district portion of the state, about a

Continued on page 10

Wine from page 9

third of the total). In Minnesota, the next biggest producer, wine output almost quadrupled to over 114,000 gallons during the decade. However, the district's wine output is minuscule compared with that of the nation, dominated by big wine states such as California, Washington and New York. Last year, the entire wine output of district states amounted to less than one-tenth of 1 percent of U.S. production.

Most district wineries are small operations that make a few thousand cases of wine annually, although some established wineries have expanded their output over time to become relatively large producers. Prairie Berry Winery, a 12-year-old operation in the Black Hills of South Dakota that makes wine from grapes and other fruits, produced 60,000 gallons last year, making it the state's largest winery. That's bigger than most wineries across the country; in 2007, according to WineAmerica, 63 percent of U.S. wineries made less than 25,000 gallons of wine annually.

The lure of local

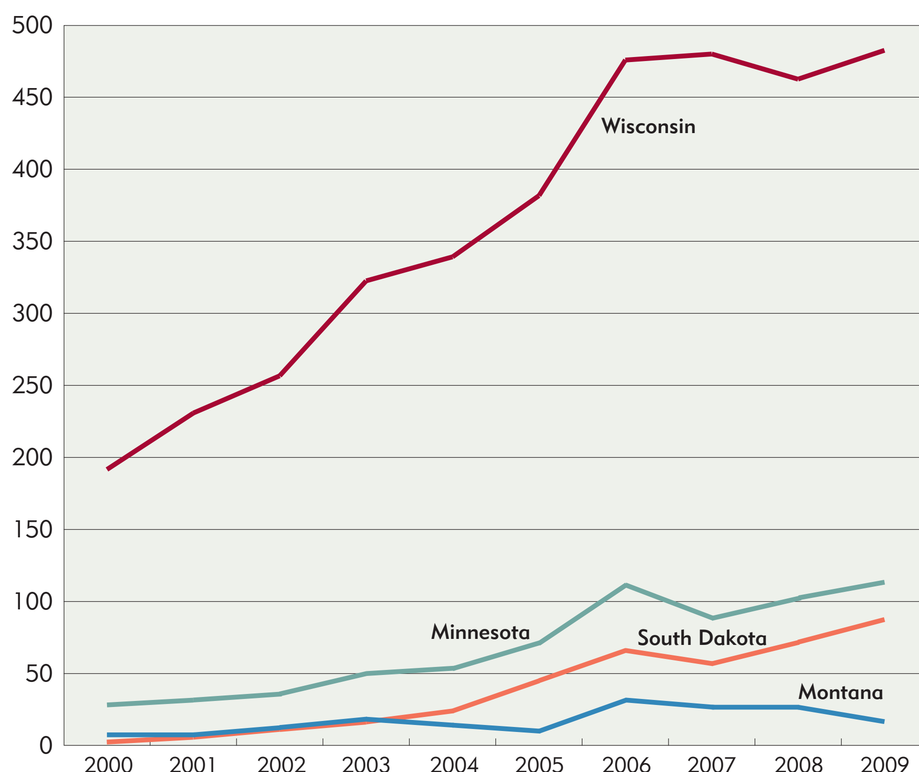
Wineries are a form of agritourism—rural attractions that exploit rising consumer interest in locally produced foods—the same movement that has fueled the growth of community supported agriculture, farmers markets and organic foods. Local wineries also tap into the romance of winemaking, a certain *je ne sais quoi* that sets wine apart from other agricultural products like corn or wheat. One South Dakota winery bills itself as "a little bit of Europe in the Black Hills."

Typically, district wineries garner 60 percent to 80 percent of their revenue in the tasting room, selling wine onsite to visitors rather than through liquor stores, supermarkets or other retail outlets. All district states allow wineries to sell wine and other beverages on the premises, up to an annual limit, which increases the return on each bottle sold because there's no middle party—the wholesaler or the retailer. "As long as I can retail it out of my own door, we're going to do that, because there's certainly a better profit margin there," said Ray Winter, co-founder of Indian Island Winery near Janesville, Minn.

Attracting visitors to the tasting room is crucial; many wineries set up shop in well-trafficked areas frequented by day trippers and tourists. Carlos Creek Winery in Alexandria, Minn., capitalizes on its location in a popular lake resort area.

"Alexandria is a pleasant place to see a winery," said Tami Bredeson, who owns Carlos Creek along with her husband, Kim. "If we were located in Cedar Swamp, Minnesota, somewhere, 150 miles from a population center or anything else to do, it would be far more difficult."

CHART 1 **District wine production has increased ...**
Bulk wine; 1,000 gallons*



*Data for North Dakota and the U.P. of Michigan are unavailable.
Source: U.S. Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau

A lot of people romantically think, 'I just inherited $5,000 from my grandmother; let's start a winery.' It requires a lot of work and a significant investment.

Brad Nilles
Seven Hawks Vineyards

Farm winery laws also permit wineries to sell small amounts of wine over the phone and via the Internet, and in every district state except North Dakota distribute directly to retail outlets in their home state (rather than going through a wholesaler, as other manufacturers of alcoholic beverages are required to do).

Intent on helping fledgling industries tied to both agriculture (increased demand for local produce) and tourism, some district states have relaxed regulation of wineries. In 2007, the Minnesota Legislature amended the state's long-standing farm winery law to allow wineries to operate a restaurant on the premises. In 2008, South Dakota lawmakers raised the annual production ceiling for wineries from 50,000 gallons to 150,000 gallons.

Grapes with a winter coat

For all the consumer appeal of local wineries, and the regulatory forbearance they've enjoyed, the industry would not have grown as rapidly as it has without the invention of grape vines that don't curl up and die from the winter cold.

Until the late 1990s, prospective vintners struggled to grow their own grapes. Marketable wines can be made from other fermentable produce, including apples, raspberries, honey and rhubarb. Several district wineries, including Prairie Berry and Scenic Valley Winery in Lanesboro, Minn., make the bulk of their wine from such ingredients. But grapes have been the fruit of choice for winemakers for centuries, and most people prefer the taste of grape wine.

Pioneering winemakers found that traditional European grape varieties and early French-American hybrids could not survive the region's severe winters without extraordinary intervention—taking vines off the trellis and burying them. Some wineries resorted to trucking in grapes from warmer climes such as California, Washington state or western Michigan.

New hybrids developed by university and private grape breeders over the past 15 years "have really cut down on the amount of cost and labor involved in producing good-quality grapes," said William Gartner, a professor of applied economics at the University of Minnesota who has done research on regional wineries.

Grapes bred at the University of Minnesota, such as Frontenac, La Crescent and Marquette—crosses of European grape varieties with native, wild grapes—can survive temperatures as low as –35 F., ripen early in the region's short summers and, by many accounts, make palatable wines.

Most district wineries founded in the past five years are primarily grape wineries using the new grape types. Dave Greenlee of Tucker's Walk said that the availability of the new grapes was the impetus for starting the winery. "All of these cold-hardy grapes that have just really started to take off in the last 10 or 12 years have gotten a lot of people excited," he said.

The Greenlees have about six acres of cold-hardy vines on their property—part of an upsurge in district grape production by wineries and independent growers over the past decade. The amount of grapes grown in the district still is tiny compared with big wine producing areas with tens of thousands of acres of grapes. But between 2002 and 2007, grape acreage in the region more than doubled, according to the U.S. Census of Agriculture. Every district state reported increases in grape acres during that period (see Chart 2). Minnesota saw a threefold increase in grape acreage.

The new varieties have even allowed a few vineyards to take root in North Dakota, Montana and the U.P., although grape growing there remains a risky proposition—winters can be too frigid (or summers too cool) even for the new hybrids.

The overall growth of vineyards in the district has boosted business for

Plantra Inc., a Twin Cities firm that sells growing tubes for young vines and protective bird netting. Five years ago, all of Plantra's sales were on the West Coast, said CEO Joseph Lais; today new and expanding vineyards in the Upper Midwest account for 20 percent of the firm's $3 million in annual revenue.

A glass half full

Like many retail businesses, district wineries are trying to recover from the recession, which put a cork in visitor traffic, tasting room sales and average purchases at many wineries.

Montana wineries seem to have been hit hardest by the economic downturn. While wine production rose in other district states from 2008 to 2009, it fell 38 percent in Montana. At Mission Mountain Winery on Flathead Lake, the state's oldest and largest winery, the recession "took a big bite" out of sales, said owner Tom Campbell Jr. Fewer tourists heading to Glacier National Park and other attractions contributed to an 8 percent drop in sales in 2008 compared with the previous year.

Two years ago, the state had nine farm wineries; since then one has closed, and two others are on the verge of closing. Lake Missoula Cellars in Missoula went out of business in the spring of 2009, a victim of consumer shock in the wake of the financial crisis the previous fall. "With the change in the economy, our walk-in traffic dropped from 500 people a day to 35 people a day, and never came back," said former owner Doug Wagner.

Despite the struggles of some wineries, most operations in the district appear to have survived the recession; indeed, some have thrived. Prairie Berry benefited from a resilient South Dakota economy and the enduring popularity of the Black Hills as a tourist destination; the winery's sales grew more slowly, but didn't fall during the downturn. In 2009, revenues grew 15 percent, said Matt Keck, who owns the winery with his wife, Sandi Vojta.

"We're still on a pretty steep growth curve," he said. "The recession, as far as sales go, hasn't really affected us."

The winery's biggest problem during the downturn was borrowing money to expand production. Last fall, the winery spent $1.5 million on new facilities and equipment that increased its annual wine capacity to 100,000 gallons. But Keck said that the winery would have doubled its expansion if it had been able to secure additional financing from its long-time lender.

Prairie Berry was on track to increase sales 20 percent this year—roughly the pace of annual growth before the recession. Keck and Vojta were planning to hire five additional employees, including a full-time personnel manager.

Business was also on the rebound at Carlos Creek; Bredeson said that sales have increased by over 10 percent each month since the summer of 2009.

Too many wineries?

The upward trajectory of district wineries over the past decade and a half raises the question of how many wineries the market can support. At what point will the public have its fill of indigenous wines and rustic charm?

In Minnesota, Gartner of the University of Minnesota sees plenty of opportunity for further winery growth, given that less than 1 percent of the wine purchased in the state is homegrown. "Their market share is relatively insignificant, and I don't think we're anywhere near reaching [saturation] point," he said. "We're at the beginning of the growth stage … and haven't come close to our peak."

That may also be true in areas that are either close to a large metro area (western Wisconsin, for example) or frequented by tourists, like the Black Hills or western Montana. In such areas, new wineries create "buzz" about local wines, generating more visitor traffic for existing operations. Marketing efforts such as the Great River Road Wine Trail, an online guide to 10 wineries along the Mississippi River south of the Twin Cities, try to leverage this network effect.

New market entrants may find the going tougher in areas with sparse population or relatively low average household income, like the U.P. "I think the market will dictate that," said Dave Anthony, a grape grower in the Escanaba area who sits on the Michigan Grape & Wine Industry Council, a state-sponsored promotional organization. "If people are not staying in business or finding it very difficult, then the marketplace is telling them that there's saturation."

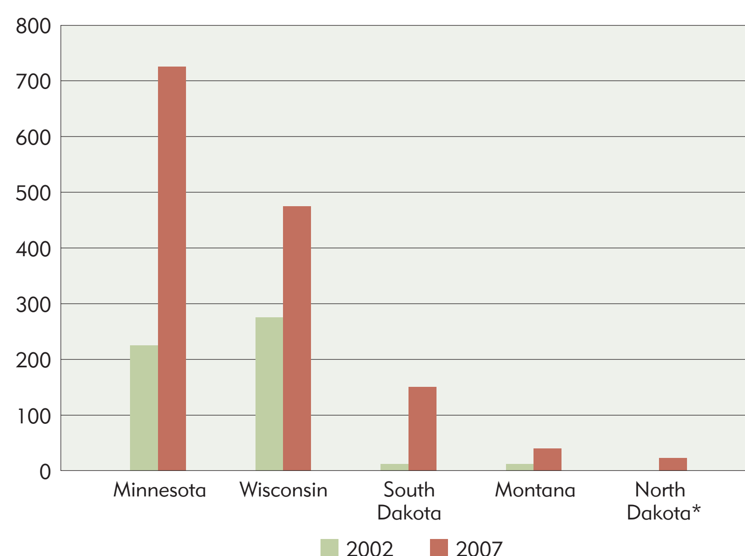
The biggest challenge to large-scale winemaking in the district will continue to be the climate. Prairie Berry's success and the founding of several other fruit wineries in the district in recent years show that there's demand for wines made from something other than grapes. But whether the industry continues to grow over the long term depends to a large degree on ongoing efforts to breed grapes that can withstand the coldest weather while producing high-quality wines.

A common criticism of regional wines is that they just don't taste as good as those produced from traditional grape varieties such as Chardonnay, Merlot and Riesling. The allure of a local product goes only so far; if vintners cannot consistently produce pleasing wines, consumers will buy wines from California and other mainstream wine areas instead—and the growth of district wineries is likely to falter.

Nilles of Seven Hawks is optimistic, noting that the region's wine industry is young and that grape breeders and winemakers still have much to learn: "There are going to be better [grape] varieties coming along all the time, and people are going to experiment with them, and the wines will get better and better." f

CHART 2 **… Along with district grape production**

District grape acres



*2002 data for North Dakota were withheld to avoid disclosing data for individual growers.

Source: USDA, 2007 and 2002 Census of Agriculture

Another look at measuring high school graduation rates

By ROB GRUNEWALD
Associate Economist

WONHO CHUNG
Research Assistant

Ninth District states boast strong high school completion rates, ranging from 89 percent in Minnesota to almost 95 percent in North Dakota in 2007, and have consistently outperformed the national average on this measure (see Chart 1). National data also show that high school completion has been increasing since the 1960s and that the gap between white graduation rates and black and Hispanic rates has been closing.

However, the methodology used by the National Center for Educational Statistics to calculate high school completion rates (graduation or equivalent) raises some questions about their accuracy. For example, James Heckman, Nobel laureate economist at the University of Chicago, and his colleagues argue that General Educational Development (GED) certificate holders and immigrants never enrolled in U.S. secondary schools should not be counted as high school graduates.

This *fedgazette* analysis considers alternative measures and makes adjustments to the high school completion rate, which is the percentage of 18- to 24-year-olds with a high school credential, including those who obtain an alternative, such as a GED certificate.

These measures suggest that the national and district completion rates are considerably lower compared with the traditional measure and that the gap between white and these minority graduation rates has not closed since the 1960s. They also imply that policymakers shouldn't get too comfortable with high school completion rate statistics. Improving graduation rates, particularly among black, Hispanic and American Indian populations, has a ways to go.

The case for excluding GED holders

The existing high school completion rate includes GED certificate holders, which seems reasonable because GEDs are awarded to students in lieu of finishing high school by passing tests in five subjects. However, research by Heckman and his colleagues has demonstrated that after corrections are made for differences in ability, GED holders earn levels similar to those of high school dropouts. Other studies show that GED holders are far less likely than high school graduates to finish 2-year or 4-year college degree programs.

Despite these findings from aggregate GED statistics, there are plenty of reasons at the individual level for a high school dropout to achieve a GED. A high school diploma or GED is often required for post-secondary education programs or entry-level jobs. Nevertheless, Heckman argues that meaningful high school graduation statistics should exclude GED holders.

When a measure that excludes GEDs is used, the averaged freshman graduation rate of public high school students divides the number of public high school diplomas issued in a particular year by the average membership of the 10th-grade, 9th-grade and 8th-grade classes two through four years earlier. The rate essentially measures the percentage of freshmen who graduate from public high schools but, unlike the high school completion rate, doesn't include students who attend private schools or students who drop out of school before the 8th grade. U.S. and district averaged freshman graduation rates are lower than completion rates (see Chart 2).

The gap between district and national graduation rates is much wider when GEDs are excluded, compared with the high school completion rate, because GED holders represent a smaller percentage of the district population compared with the nation. Nevertheless, a sizable number of district high school freshmen don't graduate from high school. In the 2006-07 school year, more than 23,000 students in district states who finished their freshman year three years earlier did not graduate.

More than GEDs

Excluding GED holders from the high school completion rate is not the only adjustment that could improve the estimate's accuracy. Heckman and Paul LaFontaine, also affiliated with the University of Chicago, point out three additional concerns. First, since the high school completion rate is based on data from the Current Population Survey, the institutionalized population—those in the prison or the military—is not included. Second, the completion rate includes immigrants who moved to the United States but were never enrolled in U.S. secondary schools; counting these immigrants biases the completion rate downward. Third, respondents to the survey likely confuse the response options to a question regarding education attainment.

Heckman and LaFontaine use census data from 1970, 1980, 1990 and 2000 to make these adjustments. They find that the adjusted U.S. high school graduation rate was 77.5 percent in 2000, 8.8 percentage points below the high school completion rate. Furthermore, they show that the high school graduation rate did not increase from 1970 to 2000.

These same data adjustments were made to the five district states as a group (states were aggregated to achieve a large enough sample to make the adjustments). Similar to the national results, the adjusted high school graduation rate for the district in 2000 also declined, in this case 6.7 percent from its original or "official" measure to 83.4 percent. However, similar to trends noticed with the completion rates, over time the gap between the district and the nation closed, from 11.1 percent in 1980 to 5.9 percent in 2000 (see Chart 3).

White-minority gap remains wide

High school completion data also suggest that the gap between white and minority high school completion rates has been closing since the early 1970s.

CHART 1a **Wisconsin and Minnesota exceed U.S. high school completion rates**
High school status completion rate, 3-year moving average*

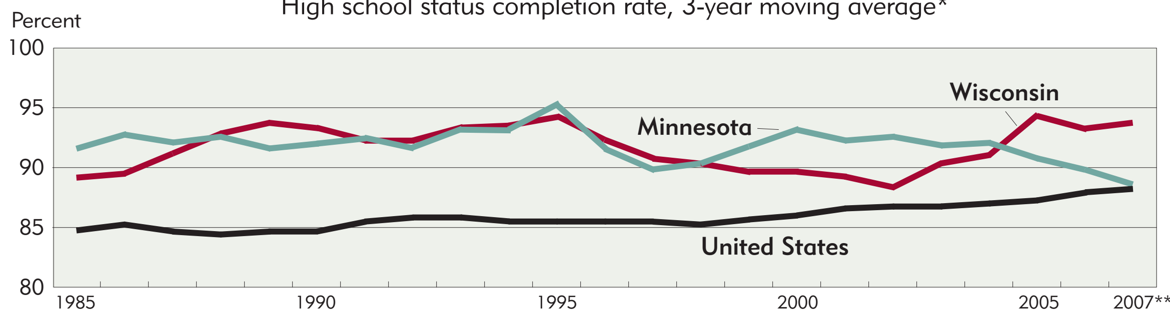
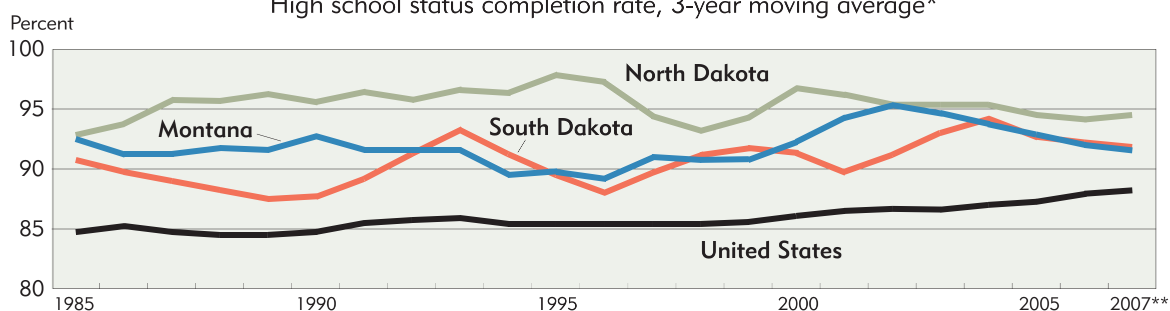
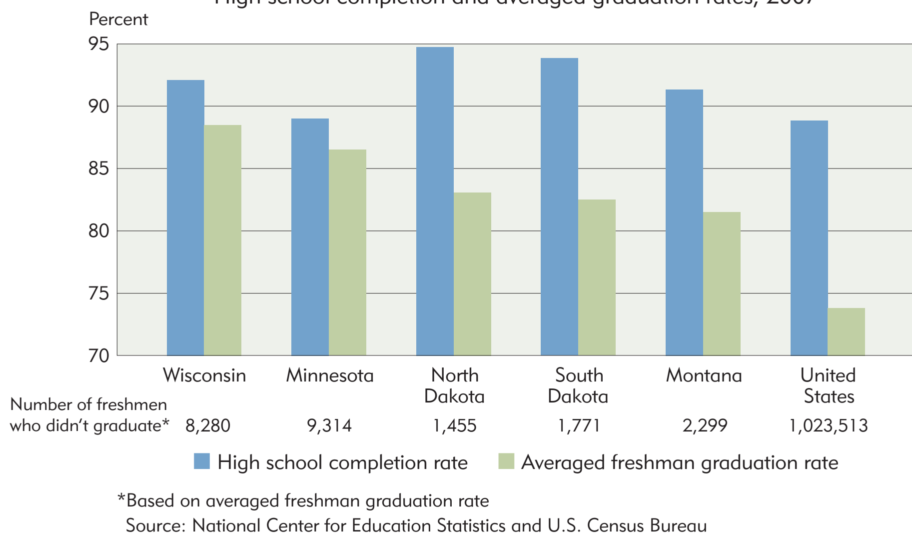


CHART 1b **Montana and the Dakotas also exceed U.S. rate**
High school status completion rate, 3-year moving average*



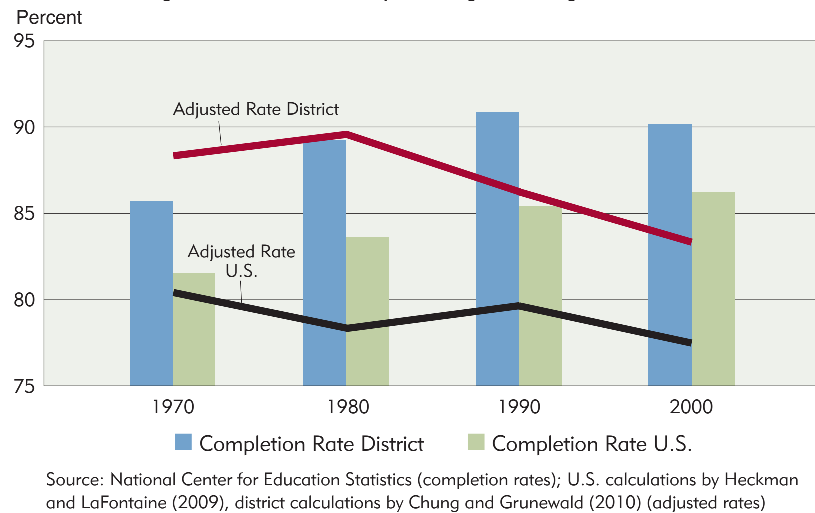
*Percentage of 18- to 24-year-olds with a high school credential, including those who obtain an alternative credential, such as a General Educational Development (GED) certificate. Average of current, previous and subsequent year.
**Two-year average of current and previous year.
Source: National Center for Education Statistics

CHART 2 **Graduation rates lower when excluding GEDs**
High school completion and averaged graduation rates, 2007



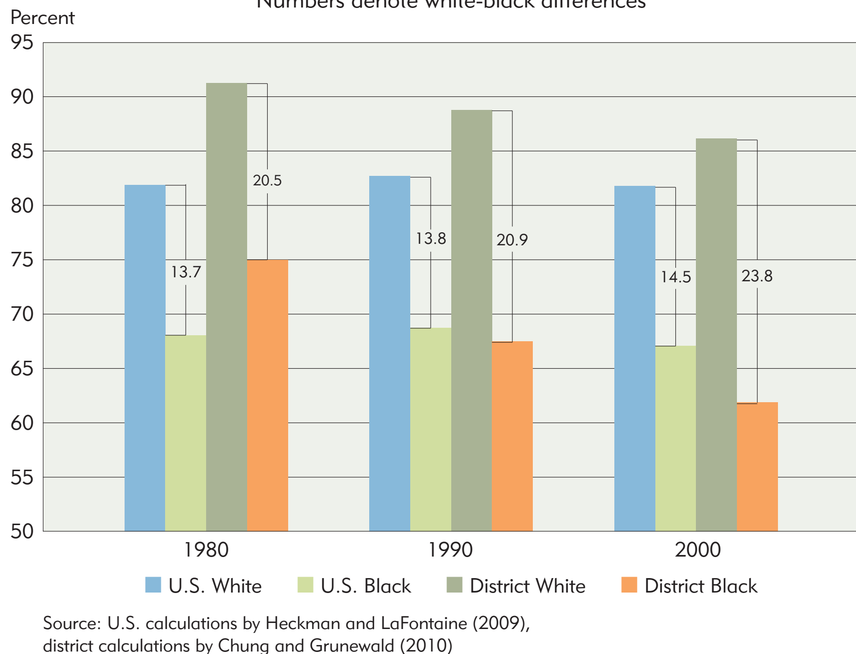
*Based on averaged freshman graduation rate
Source: National Center for Education Statistics and U.S. Census Bureau

CHART 3 **U.S. and district adjusted graduation rates fall**
High school rates and adjusted high school graduation rates



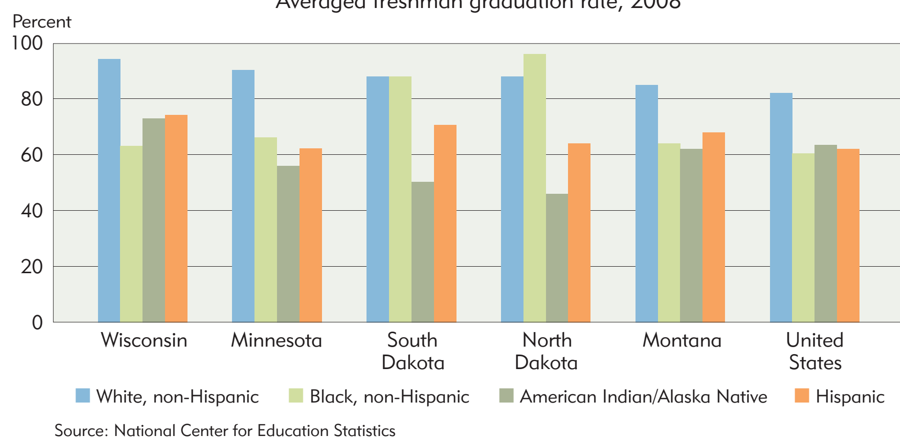
Source: National Center for Education Statistics (completion rates); U.S. calculations by Heckman and LaFontaine (2009), district calculations by Chung and Grunewald (2010) (adjusted rates)

CHART 4 **White-black graduation rates gap widens in district**
Adjusted high school graduation rates
Numbers denote white-black differences



Source: U.S. calculations by Heckman and LaFontaine (2009), district calculations by Chung and Grunewald (2010)

CHART 5 **Compared with U.S., district white grad rates high, American Indian rates low**
Averaged freshman graduation rate, 2008



Source: National Center for Education Statistics

For example, the difference between white and black high school completion rates decreased from 12.3 percent in 1980 to 8.5 percent in 2000. However, after Heckman and LaFontaine make adjustments to the high school completion rate, the gap between white and minority high school graduation rates remains unchanged over this time period. In the case above, the gap between white and black graduation rates actually rose slightly, from 13.7 percent in 1980 and 14.4 percent in 2000 (see Chart 4).

The primary reason the adjusted high school graduation rate shows increased gaps between white and black rates is the exclusion of GED holders. In 2000, 10 percent of U.S. white male high school completers aged 20 to 24 had a GED, while 16 percent of black male high school completers aged 20 to 24 had a GED. Once the high school completion rate adds GED holders into its figures, the black completion rate catches up with the white completion rate.

Because the district data sample used to calculate annual high school completion rates is too small to calculate consistent minority graduation rates over time, it's not clear whether the gap between district white completion rates and black and Hispanic rates has been closing. But when the Heckman-LaFontaine adjustments are applied to census data, the difference between district white and minority graduation rates widens. In 1980, the difference between white and black graduation rates was 20.5 percent; in 2000, the difference increased to 23.8 percent, a bigger gap than seen in national figures (see Chart 4).

For a state-by-state view of graduation rate gaps, we turn to the averaged freshman graduation rate. On this measure we find large gaps between white and black and Hispanic graduation rates in Wisconsin and Minnesota in 2008 (see Chart 5). Note that black and Hispanic high school students combined in Montana and the Dakotas represent less than 3 percent of total graduates; therefore, these graduation rates are somewhat volatile from year to year.

The relatively large differences in white-black and white-Hispanic graduation rates in Wisconsin and Minnesota are largely due to strong performance among white students rather than relatively poor performance among black and Hispanic students. Graduation rates among white students in Wisconsin and Minnesota were 13 percent and 9 percent, respectively, higher than graduation rates among white students nationally.

Differences in graduation rates between white and American Indian students are also wide, including 41 percentage point and 37 percentage point differences in North Dakota and South Dakota, respectively, where American Indian students represent more than 5 percent of total graduates. In Montana, where almost 9 percent of high school graduates are American Indian, the difference is 21 percent. All district states, except Wisconsin, have lower American Indian graduation rates than the nation.

Graduation rates for Asian/Pacific Islander students are not listed in Chart 5, but nationally are higher than white graduation rates: 91.4 percent compared with 81 percent in 2008. In the district, Asian/Pacific Islanders represent 1 percent or less of graduates in Montana and the Dakotas, almost 4 percent in Wisconsin and almost 6 percent in Minnesota. In 2008, Asian/Pacific Islander graduation rates were higher than white graduation rates in Montana, South Dakota and Wisconsin, and slightly lower in Minnesota and North Dakota.

The adjusted high school graduation rates and averaged freshman graduation rates show that rates among black, Hispanic and American Indian students in the district and the nation are much lower than policymakers and others would like to see. If they look only at the high school completion rate, these white-minority graduation rate gaps and the overall graduation rate may look a little too rosy. f

For more information on the district high school graduation rate study, visit minneapolisfed.org.

Envisioning a different type of suburb

An interview with University of Minnesota geographer Brenda Kayzar

Brenda Kayzar started her career in real estate lending, working for a bank in Chicago, then later running her own mortgage brokerage in Southern California. Today, she's an assistant professor of geography at the University of Minnesota with a strong research interest in the suburban system of housing of which she once was a part.

Kayzar sees the current housing slump as an opportunity to reassess the standard pattern of development in outer suburbs—single-family homes built in spread-out neighborhoods accessible only by car. In 2008 and 2009, she and fellow researchers at the university undertook a "community growth options toolkit" project in the Twin Cities outer suburbs of Farmington and Rosemount to help civic leaders and residents envision an alternative approach to development on the periphery of metro areas.

Recently, she spoke to the fedgazette *about the prospects for change in exurbia.*

We have all of these structures in place that perpetuate the suburban model of development; going to the alternative is like stopping a freight train.

fedgazette: The housing market in many metro areas in the Ninth District remains in the doldrums. If we want to rethink the standard low-density, dispersed model for exurban development, why is this a good time to do that?

Kayzar: In a heated market, when there's a big rush of development going on and you have big demand for housing, there's no changing the 20-year comprehensive plan at that point. You're going to do it the easiest way possible, because the zoning's already in place. In a hot market, people are not going to buck the system and say, "We're going to rethink this, we want to do some different densities, different types of housing, some mixed residential and commercial uses." But when the market slows and there's less demand for housing in the periphery, I think that's a good time to say, "Let's think about this before the next boom comes along and we're working with this long-term plan that doesn't have a real vision."

fedgazette: Why should we rethink development patterns on the city-rural fringe at all? Doesn't rapid residential growth in these areas over the past 20 to 30 years show that the current model of low-density development works—that this is what home buyers want?

Kayzar: Well, the assumption that's made there is that buyers are demanding this—that supply is really meeting demand. But if we look at our inventory of housing in this country, the majority of it is suburban-style, single-family houses. So when you ask people to describe their ideal home, their reply is going to be in many ways shaped by the fact that they don't have any other experiences to compare it with. To try to envision another experience—how would they do that when the majority of housing that's out there is this model?

There's also the issue of cost and lack of affordability. We're moving that front edge of suburbia farther and farther out into these peripheral communities, and we're building based on a model that's very expensive to purchase and maintain. Low density, the idea of the countryside and not having your neighbors close by—all of that argues for a large lot, a large-footprint home. Infrastructure is expensive to build out in the periphery; you're covering a lot more ground with plumbing hookups, water lines, etc., and instead of tapping into existing structures, you're creating wholly new structures.

fedgazette: All of that may be true, but after previous housing busts, the housing market on the edge of metro areas rebounded, with robust growth continuing as before. Why shouldn't we expect history to repeat itself?

Kayzar: That expectation does not really take into consideration the fact that our household structure has changed so much, especially within the last decade. We're looking at a model for development that was created for one type of household—the nuclear family—which makes up less than 25 percent of [U.S.] households today. Yet we have many single-parent households; we have many no-children households; we have this huge, huge growing demographic of aging baby boomers. Municipalities are going to have to look at how to provide all the services that an aging population is going to need. They're aging in place; they might not be able to drive; they may not get to the types of services they want in a suburban setting.

fedgazette: Briefly describe your "community growth options toolkit" project in Rosemount and Farmington—what did you set out to accomplish in these Twin Cities exurbs?

Kayzar: These two communities had developed new 2030 comprehensive plans that were in the process of being approved by the city council and the community. The plans were set in place when the market was still booming, so they maintained a lot of the same ideals that the previous plans did—single-family homes, low density, etc. For the most part, it was business as usual. In interviews, the lead planners for Rosemount and Farmington had outlined their concerns: demographic shifts, not being able to get young people to move back to the community after they left to go to college.

The idea behind the toolkit was to gain some capacity for doing something different in a changing market. First, we used mapping as a way to represent potential change—what would alternatives to the current model look like? Second, we suggested ways to educate the public about development options, to reduce apprehension about developing in a different way.

fedgazette: Did your mapping propose zoning changes to reshape these communities?

Kayzar: [Nods] We developed three different scenarios that involved either changing zoning to permit higher-density development in some areas or simply going to the maximum density allowed under current zoning. By overlaying these scenarios on a map, we can show how a community can create a greater diversity of housing types and sizes in order to attract buyers. Maybe someone in Rosemount has grown children who went away to college, but now they're working and they're thinking about where they want to live. Well, now they can come back to Rosemount because they can afford a 1,000- or 800-square-foot place. Maybe a young family can have their aging parents living in an accessory dwelling unit—a small house in the back of the main house.

What we tried to show in the maps is that if you do this, not only do you get the benefit of having housing that meets a greater demand; in addition, you don't have the costs of sprawling infrastructure, the costs of lost agricultural land and open space. These are all things that should make a difference to the municipality in the future.

fedgazette: Why the need for such a planning toolkit? If home buyers in the exurbs are gravitating toward this denser and more diverse model of development, why can't city planners let the market provide it, altering zoning to accommodate it if necessary?

Kayzar: We have all of these structures in place that perpetuate the suburban model of development; going to the alternative is like stopping a freight train. Planners talk about this a lot, the fact that any effort to make changes and talk about increasing density is met with a NIMBY response; the community says, "We really don't want that in our community."

This is where the education process comes in. The toolkit gives planners some resources they can use to help all the stakeholders envision affordability and density in a different way. One of the problems is the language [of development]. When you start talking about density in suburban communities, people think in terms of high-rise condo towers. Affordability somehow equates to subsidized housing and poor people and crime. One of the things we try to do is overcome this terminology. For example, you can have market-rate affordability. What does it look like? Well, it means homes with a smaller footprint, or townhouses or row homes instead of single-family homes.

This is where the education process comes in. The toolkit gives planners some resources they can use to help all the stakeholders envision affordability and density in a different way. One of the problems is the language [of development]. When you start talking about density in suburban communities, people think in terms of high-rise condo towers. Affordability somehow equates to subsidized housing and poor people and crime.

—Brenda Kayzar

PHOTOGRAPHS BY STAN WALDHAUSER

None of these suggestions for changes in density is going to create anything remotely urban in peripheral communities. It's still going to look like a suburb. What you have to do is get people over the terms, over the preconceptions, to get them to envision what a little bit different suburb could look like.

fedgazette: You've said that another obstacle to breaking the suburban mold is reluctance by lenders to finance nonstandard housing. Why is that? Again, if people wanted townhouses and other types of compact development, why wouldn't banks and other investors finance it?

Kayzar: You're asking lenders and insurers to change their concept of housing. Our residential mortgage system grew up in tandem with the post-World War II housing boom; it's a mass production process. The most standard residential loan, with regard to analysis and administration, is for a single-family home. Nontraditional development means that appraisers and underwriters are going to have to rethink the property. Lenders are now going to have to stop and say, "OK, how can we determine what the value really is, because we haven't really seen that before, so we don't know whether that's going to work or not."

Also, standard suburban design calls for a separation of uses—commercial from residential—and financing for properties mirrors the segregation of land uses on the ground. When you develop a property with both types of uses—say, condo units with ground-level retail—you're mixing commercial and residential loans, and that's seen as higher risk. There's still limited precedent for mixed-use building loans, so it's difficult to value these types of property, to find local comparables to do a comprehensive appraisal.

fedgazette: How did planners in Rosemount and Farmington respond to your proposals? Does either city plan to alter its development approach?

Kayzar: The response from each planner differed. The planner in Farmington was very interested in the information provided in our report. She told me she planned to draw from this information when talking to city council members about the need to rethink some of the plans for future growth in her city. She was like, "I need these tools in order to help get across to the city council what I'd like them to do. I need to have them understand." She views the surrounding agricultural fields as an amenity that makes Farmington unique, so she has a desire to preserve this land. I may do some follow-up work for her, provide some additional visualizations she can use.

The planner in Rosemount was less enthused. He felt we misrepresented his community, that it's not peripheral, but suburban. Although he indicated in initial conversations that he was concerned about changing demographics, he was adamant that developers would not build higher-density projects or alternative-housing types. He suggested that they knew market demand and would dictate supply. He also suggested that closer-in communities would provide enough higher-density housing, so Rosemount should remain low density to meet demand for that type of housing. He felt the city's 2030 plan created enough diversity in housing to meet future needs.

fedgazette: If indeed we're on the cusp of a new paradigm for exurban development, is this break from the past likely to be evolutionary rather than revolutionary? Will change take years or even decades?

Kayzar: One of the telling things will be how much time it takes for these peripheral communities to recover from this particular market downturn. This housing downturn is unlike anything that's ever happened before. In past downturns, the market has taken five to seven years to really come back in peripheral communities. Well, what if it's more than a decade? What if this particular housing recovery is something like 15-plus years? Obviously, that's going to be an impetus for change. That's why I think it's a good time to look at it now, to start having this conversation.

The other, long-term factor is the demographic shift—what is going to happen to this huge inventory of single-family homes in peripheral communities as the baby-boom generation ages? Is that huge inventory going to become an albatross? That's when peripheral communities are going to start saying, "We're losing population, we need to attract somebody. How do we attract them?" That's maybe when they would start to think about building in a different way.

—Phil Davies

Mild Ninth District recovery expected to warm up

By ROB GRUNEWALD
Associate Economist

TOBIAS MADDEN
Regional Economist

The mild economic recovery could warm up in 2011, according to results from the Minneapolis Fed's forecasting models and outlook surveys. Since the end of the recession in June 2009, economic conditions have slowly improved; and though employment levels dropped over this period, they have recently crept higher. Consumer spending has increased moderately, and the manufacturing sector is expanding.

Looking to 2011, respondents to the Minneapolis Fed's business outlook poll have expressed renewed optimism following two years of pessimism. Furthermore, the forecasting models predict increases in income and employment. The agriculture outlook is upbeat, with ample soil moisture and expected higher prices for outputs. However, relatively high unemployment rates are predicted in some district states, and home building is not expected to recover anytime soon.

Underlying the overall positive report is optimism expressed by respondents to the business outlook poll, where 63 percent were somewhat or very optimistic for their community's economy during 2011, up from 42 percent in last year's poll (see page 18). This level of optimism hasn't been recorded since the 2007 outlook poll. Respondents to the Minneapolis Fed's survey on business confidence were also more positive than negative regarding business-related metrics involving their firm, including sales, profits, hiring and capital spending.

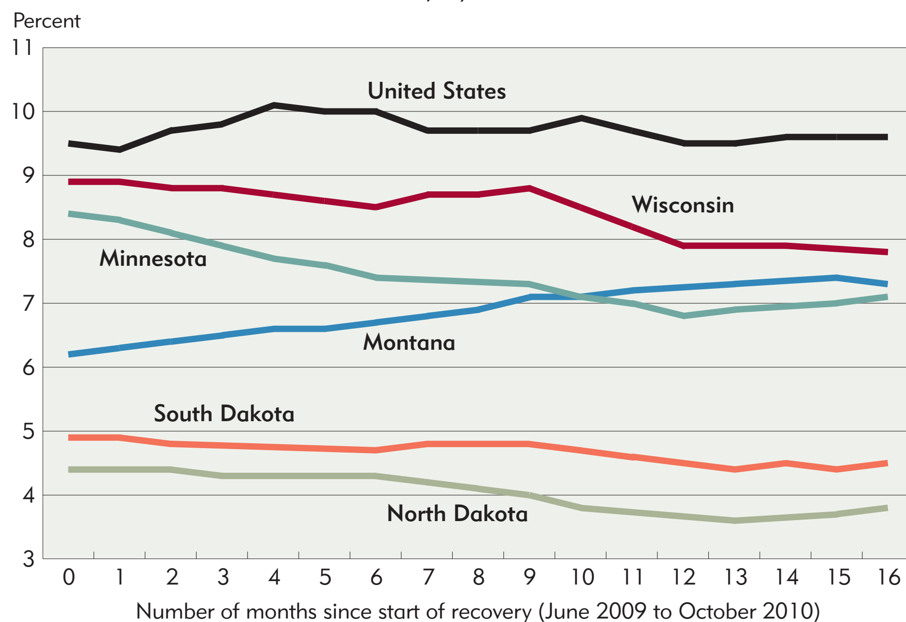
Overall employment is picking up

Since the beginning of the economic recovery in June 2009, U.S. and district employment growth has been subdued (see Chart 1). Nonfarm employment decreased in all district states except North Dakota, which was also the only district state where employment levels during the recession and recovery did not dip below prerecession levels.

However, during the second half of 2010, employment has begun to grow in district states, except in Montana, where employment levels have slid recently. But overall levels are comparatively low; Minnesota employment remains 3.6 percent below its prerecession level. Though district unemployment rates are better than the national rate across the board (see Chart 2), Minnesota, Montana and Wisconsin rates remain well above prerecession levels.

In October, district nonfarm employment was almost 1 percent ahead of last year, better than the 0.5 percent increase for the nation. Employment gains were led by natural resources and mining, which increased more than 16 percent (see Chart 3). North Dakota added 2,400 new jobs in this sector, as oil-drilling activity remains strong. In November, 139 oil rigs were active in North Dakota, up from 56 a year ago.

CHART 2 District unemployment rates below nation
Unemployment rates*



*Seasonally adjusted
Source: Bureau of Labor Statistics

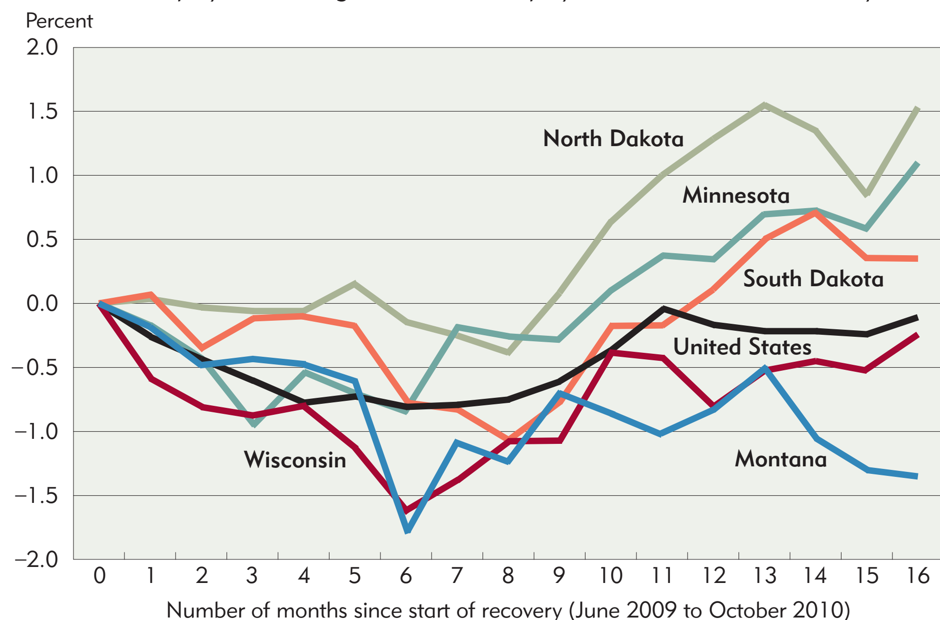
Other sectors with employment gains include professional and business services (3.1 percent), manufacturing (2.6 percent), education and health services (2.5 percent) and leisure and hospitality (1.6 percent). The construction sector posted the largest decrease (-5.3 percent), a steeper drop than national construction totals (-2.5 percent).

Montana's recovery has been weaker than other areas of the district and the nation. The state posted an almost 1 percent decrease in nonfarm employment in October from a year earlier, in part because Montana's construction sector shed a higher percentage of jobs than other district states, while sectors such as professional and business services, education and health services, and leisure and hospitality performed more poorly compared with other states.

The Minneapolis Fed's forecasting model indicates that employment growth will pick up in 2011. Growth rates will exceed 2010 rates in all areas except Minnesota, where the pace of employment growth will remain the same. In many states, growth rates will meet or exceed averages over the previous 30 years.

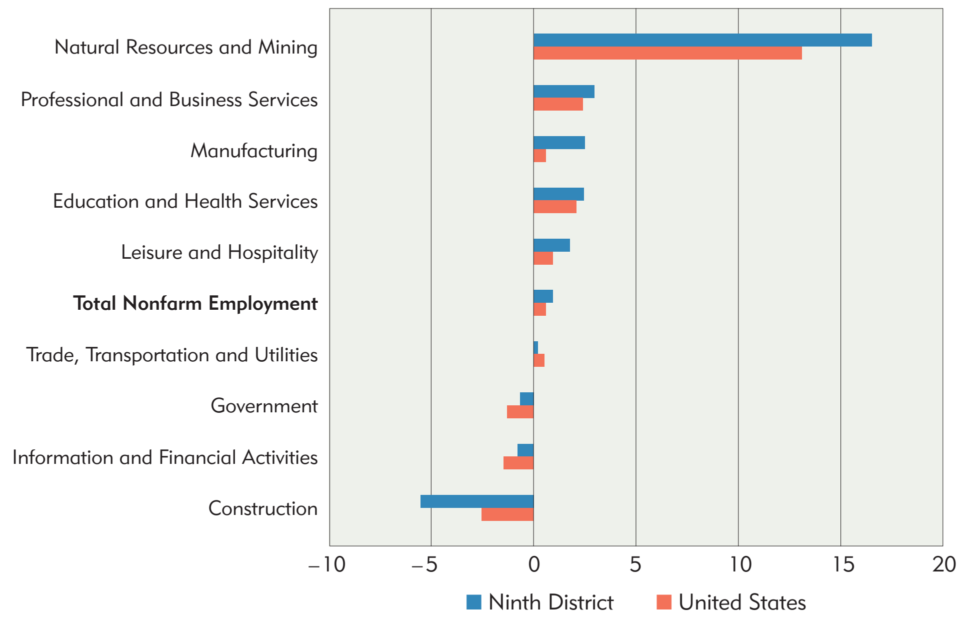
Respondents to the business outlook poll are optimistic about employment in 2011; 33 percent expect increases in full-time employees at their companies,

CHART 1 Employment growth stronger in Minnesota and the Dakotas during recovery
Employment change in nonfarm employment* from start of recovery



*Seasonally adjusted
Source: Bureau of Labor Statistics

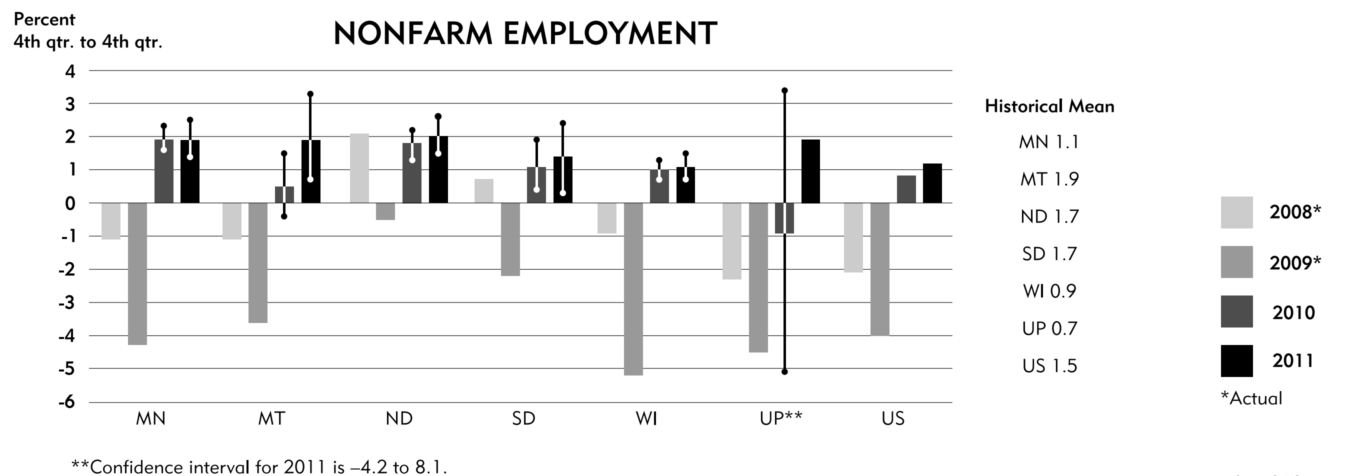
CHART 3 Employment increases in a number of industries
Nonfarm employment, percent change from a year earlier, October 2010



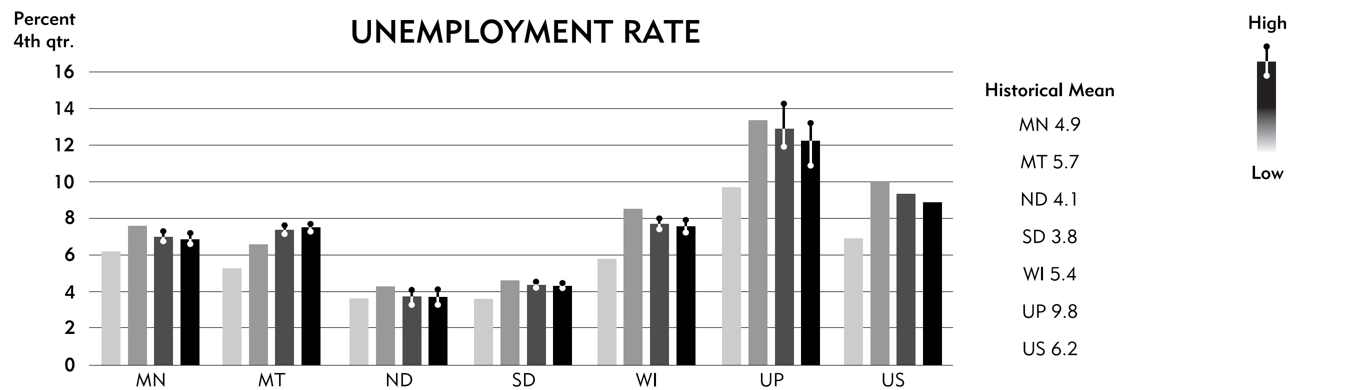
Source: Bureau of Labor Statistics

District Forecast

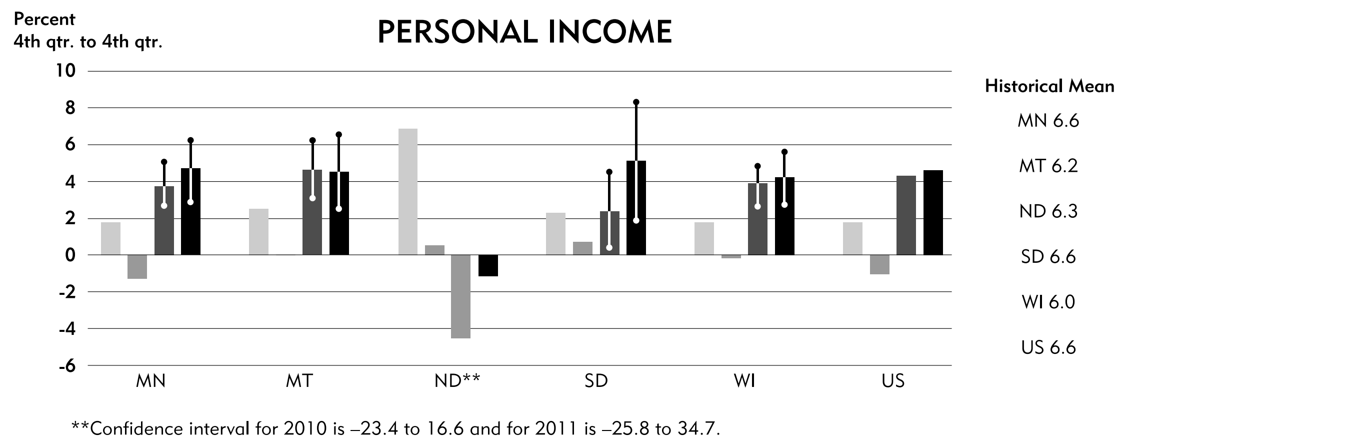
Nonfarm employment growth is expected to pick up across the district. In 2010, employment grew in all areas of the district except the Upper Peninsula of Michigan, where employment decreased by less than 1 percent. Employment growth exceeded historical averages in Minnesota, North Dakota and Wisconsin, but was lower than historical figures in Montana and South Dakota. The gains followed relatively sharp decreases in employment in 2009. In 2011, increased employment is predicted in all areas of the district. According to the forecasting models, growth rates will exceed 2010 rates in all areas except Minnesota, where the pace of employment growth will remain the same. In addition, the models indicate that employment will meet or exceed historical averages in all areas except South Dakota, where the growth rate will fall below the historical average.



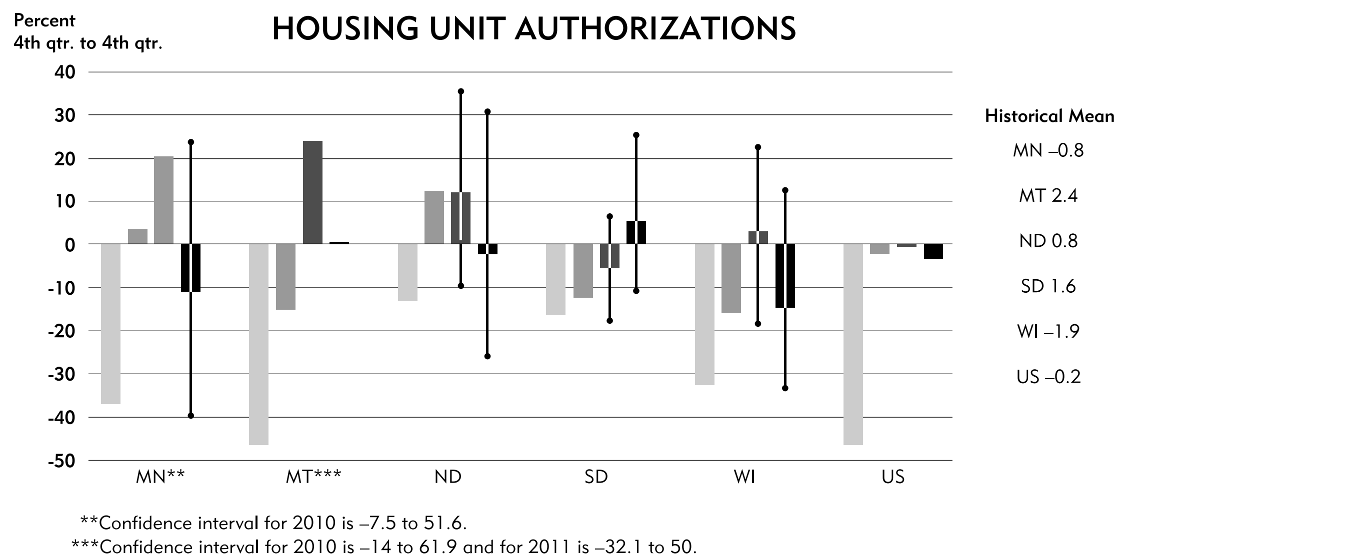
Unemployment rates are anticipated to remain level. Unemployment rates in 2010 decreased from 2009 in all states except Montana, where rates increased. Decreased rates in 2010 followed increased rates in 2009 across the district. Unemployment rates in 2010 were above historical averages in all areas except North Dakota, where the unemployment rate dropped below 4 percent. In 2011, unemployment rates are not expected to change more than 0.1 percentage points from 2010, except in the Upper Peninsula of Michigan, where the forecast shows the unemployment rate dropping by 0.9 percentage points. Except in North Dakota, unemployment rates are expected to remain above historical averages.



Increased personal income growth is predicted. During 2010, personal income increased in all areas of the district except North Dakota, where personal income decreased. Gains in 2010 followed slight decreases or level personal income in 2009. In 2011, personal income is expected to grow faster than in 2010 in all areas except Montana, where growth is expected to slow, and in North Dakota, where personal income is expected to decrease slightly. Note that the decreases in North Dakota estimated in 2010 and expected in 2011 are likely attributed to the volatile nature of farm income. The confidence intervals surrounding both of these figures are relatively wide, indicating a relatively high degree of uncertainty.



Levels of housing units authorized are expected to remain low. In 2010, authorizations grew in all district states except South Dakota, where they decreased. These increases followed about five years of declining authorization levels for the district as a whole. In 2011, housing units authorized are expected to increase in Montana and South Dakota and decrease in other states. However, the decreases in Minnesota and Wisconsin may be influenced by the unusual behavior in current data combined with the statistical properties of the forecasting model. In Minnesota and Wisconsin, housing units authorized have not only dropped sharply during the past few years, but they are also below levels observed over 30 years ago. Since forecasting models typically rely on long-term and recent trends, it is not surprising that the model points to continued decreases in 2011.



while 9 percent expect decreases. Meanwhile, 37 percent of respondents to the survey of manufacturers anticipate increasing employment during 2011, while 9 percent expect decreases.

Another sign of labor market improvement is the decrease in initial claims for unemployment insurance benefits nationally and in the district. From October 2009 to October 2010, initial claims for unemployment benefits in district states decreased 22 percent; however, claims were still 34 percent more than October 2007, just before the recession began.

While labor markets are showing signs of strengthening, the Minneapolis Fed's forecasting model predicts little change in unemployment rates in 2011. Even though employment is expected to pick up, so-called discouraged workers who dropped out of the labor force during the recession will likely begin looking for work again as job prospects improve. Workers returning to the labor force place upward pressure on unemployment rates because they get counted as unemployed instead of out of the labor force.

Consumer spending on the rise

Consumers are reaching into their pockets again after turning their backs during the recession.

Monthly U.S. retail sales through November increased on a year-over-year basis for more than 12 straight months after posting more than 12 straight

Continued on page 19

Businesses are optimistic for 2011

By TOBIAS MADDEN
Regional Economist

After two years of pessimism regarding the economy of their communities, business leaders across the Ninth District are more optimistic about the coming year, according to the November *fedgazette* business outlook poll.

Respondents believe their local economies will expand in 2011. Positive sentiment grew regarding business investment, employment and consumer spending. Respondents expect higher sales, employment and capital investment at their businesses. Employers expect small increases in wages and are not very concerned about finding qualified workers, but are very concerned about government regulation. Credit conditions appear a bit more favorable compared with last year, but housing starts are expected to fall. Leaders remain cautious about the national economy, expecting modest growth with mixed expectations for inflation.

Optimism is back

Most notable in the poll is the fact that respondents are now more optimistic than pessimistic about the outlook for their community—and by a considerable margin—compared with the previous two years (see Chart 1). The optimism is strongest in the Dakotas (see Chart 2), while respondents in northwestern Wisconsin were more pessimistic, but still positive on the whole.

Among various business metrics, expectations in local communities were positive overall; more respondents expect growth than contraction in employment, business investment and consumer spending. But opinions differed across geography and business sectors. For example, Montana, the U.P. and western Wisconsin expect declines in these categories, and respondents in construction were more pessimistic overall than those in other sectors.

While respondents are optimistic about their own businesses and communities, they are less confident about national economic conditions. "I am apprehensive about the economic future of the U.S.," a Minnesota service provider said. Almost three-quarters of the respondents expect GDP growth of 1 percent to 2 percent. "I think the economy will grow, but at a slow pace," said a manufacturer from greater Minnesota. Not everyone is confident even of modest growth; almost one in 10 expects a recession this year.

Inflation expectations for this year are quite mixed: About two-thirds believe it will be below the historical average of 3 percent. But one in five believes it will be 4 percent or higher. Minnesota respondents expect lower inflation than those elsewhere. Some leaders are also concerned about delayed inflation. "No inflation spike in 2011, but thereafter I see inflation heating up," a Minnesota farmer said.

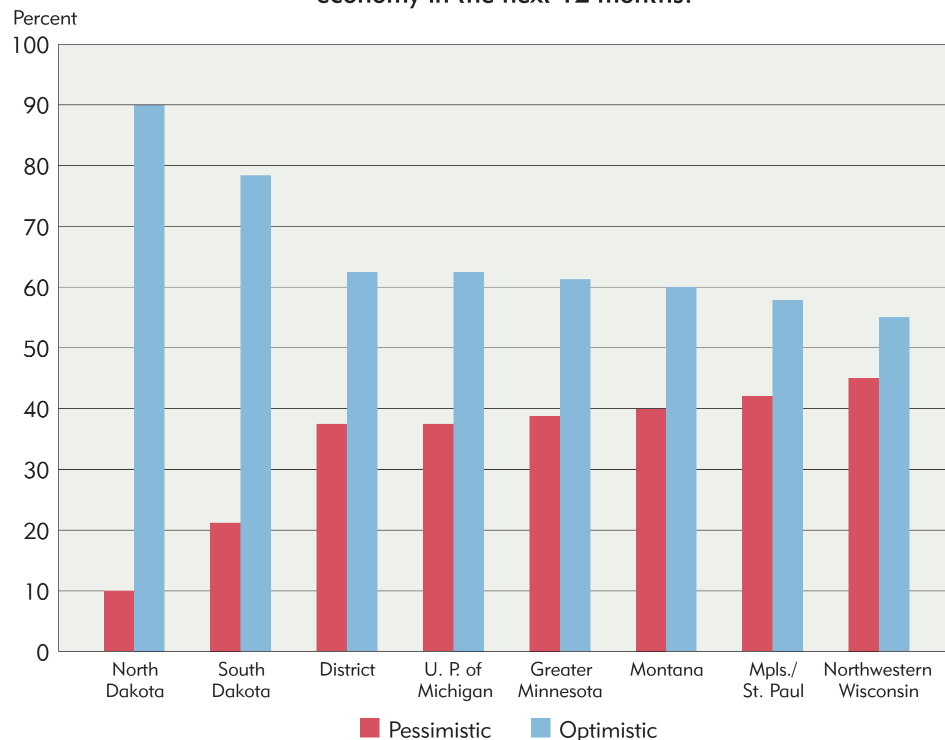
Companies see gains in 2011

Businesses expect local consumer spending to increase overall. "My locations in North and South Dakota are booming," said a retailer based in western Wisconsin. Respondents from the Dakotas expect large increases in consumer spending, while Montana, the U.P. and western Wisconsin are less optimistic on this measure.

Firms see higher consumer spending translating into higher sales for their firm this year (see Chart 3). "We see some nice sales growth coming our way," commented a northwestern Wisconsin manufacturer. That sentiment is widespread across industry sectors and geographic areas. "I believe that it is already picking up," said a service provider from the Minneapolis-St. Paul area. "We are launching many new products," a high tech firm commented.

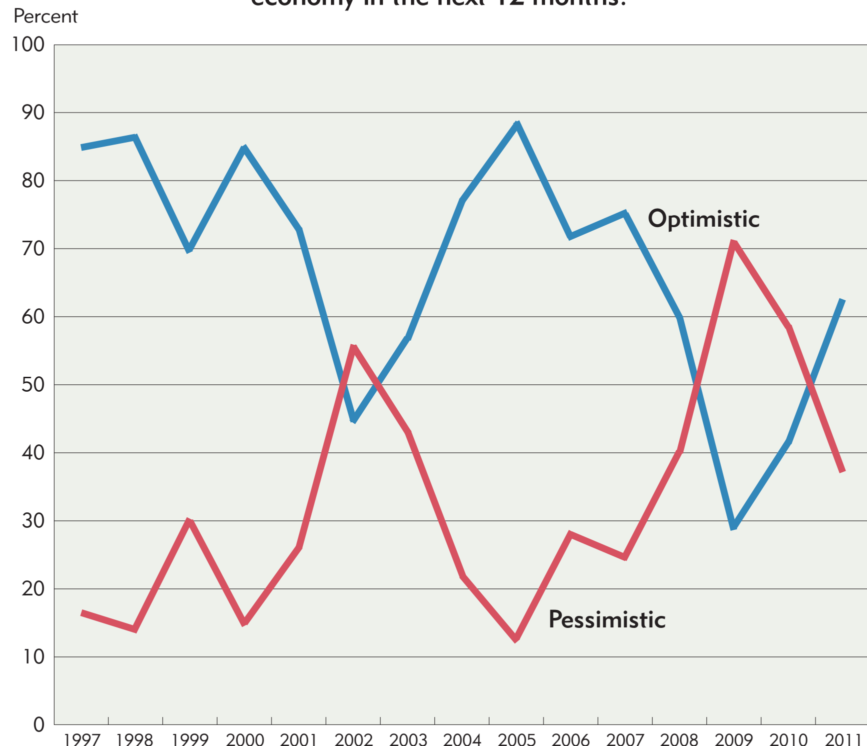
Higher sales expectations appear to be positively affecting other business decisions. For example, investment in plant and equipment is expected to

CHART 2 **Overall, what is your outlook for your community's economy in the next 12 months?**



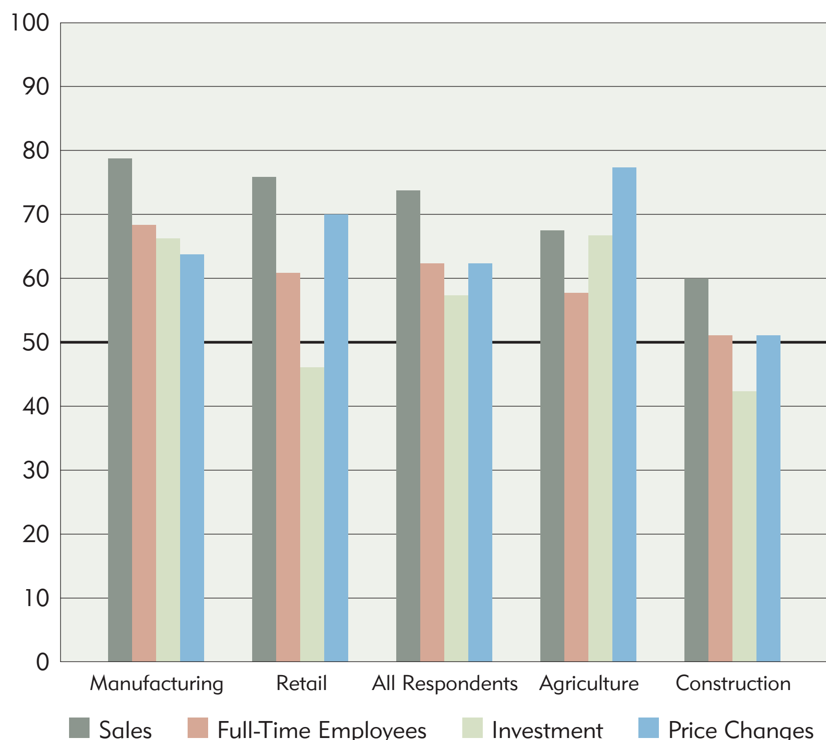
Source: Federal Reserve Bank of Minneapolis business outlook poll

CHART 1 **Overall, what is your outlook for your community's economy in the next 12 months?**



Source: Federal Reserve Bank of Minneapolis, annual business outlook polls

CHART 3 **With regard to your own company, how do you see operations changing during the next year?**
(Above 50 indicates expansion; below 50 indicates contraction)



Source: Federal Reserve Bank of Minneapolis business outlook poll

increase in 2011, except for the battered construction industry and the retail sector. Across the district, 34 percent of respondents expect increased levels and 18 percent anticipate decreased levels.

Firms across the district, and in most industry sectors, also expect hiring to pick up. One-third of respondents said they expect full-time employment this year to grow over last year's levels, compared with 9 percent expecting employment to decrease at their companies. Those looking to hire don't expect a lot of difficulty; only 25 percent indicated that securing workers is a challenge.

Not only are firms planning to add employees, but they are also getting more from their existing workforce: 70 percent reported higher productivity in 2010, with 18 percent reporting gains of 5 percent or more. "Pressure [was] placed on the workforce to increase productivity per person," commented a service provider in the Minneapolis-St. Paul area.

Wage increases are also expected, but will be modest. About half of the respondents expect 1 percent or lower wage increases, and the other half expect 2 percent to 3 percent. Workers in North Dakota can expect the largest wage increases.

Many companies are looking to raise prices in 2011 as well. Over a third of the respondents expect to increase prices on their products and services, while only 10 percent see price declines in 2011. These increases may be a result of higher confidence, but also because suppliers are raising prices, according to numerous comments.

Access to credit appears to be improving for some firms, though many still face difficulties. Eleven percent of respondents indicated that access to credit has improved over the past three months, up from 5 percent a year ago. For those reporting improved access, most indicated that it was the result of improved financial performance by their firm. Twenty-three percent of the respondents reported that access to bank credit has deteriorated over the past three months, down from 35 percent a year ago.

The only clear pessimism is related to housing, whose downturn appears likely to continue, according to business leaders. "We fear continued weakening in the construction sector," commented a Montana real estate respondent. Forty percent of respondents predict that housing starts will decline further in 2011, and only 12 percent expect increased housing starts. "The housing industry is in a depression," commented a respondent from a U.P. construction firm. Housing starts are expected to fall across the district, except in North Dakota.

With a variety of challenges facing businesses in the current economic environment, respondents said the biggest one facing their firm continues to be complying with government regulation; 88 percent cited it as a challenge in 2011. Said one Minnesota services company about government regulation, "We spent way too much time [on compliance, and] it takes away from growing jobs." f

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months of decreases during the recession. A broader measure of consumer spending, personal consumption expenditures, has also grown for more than a year.

Within the district, signs pointed to a solid holiday spending season. According to the University of St. Thomas Holiday Spending Sentiment Survey, household spending for holiday gifts in the Minneapolis-St. Paul area was predicted to increase almost 7 percent this season from 2009. This is the survey's first year since 2006 that holiday shoppers anticipated spending more rather than less.

Looking to 2011, the business outlook poll shows that 30 percent of respondents expect consumer spending to increase in their communities, while 19 percent anticipate decreases. These results are the most optimistic for consumer spending in six years. Manufacturers were also sanguine about consumer spending in their respective states, with 34 percent expecting increases in 2011 and 21 percent expecting decreases. The forecasting model shows that personal income growth is expected to pick up in 2011, which bodes well for consumer spending.

As consumers are spending more, overall price increases have remained subdued. The consumer price index increased 1.1 percent in November from a year ago. The CPI's so-called core rate of inflation, which doesn't include volatile food and energy prices, rose 0.8 percent in November from a year ago.

Manufacturing making a comeback; home building still slow

During 2010, district manufacturing employment and activity expanded. A November survey of purchasing managers by Creighton University (Omaha, Neb.) showed that manufacturing activity has increased every month to date in 2010 in Minnesota and South Dakota, and for most of the year in North Dakota. Activity in the manufacturing sector received a boost from manufactured exports, which increased 18 percent in district states during the first 10 months of 2010 compared with the same period a year earlier.

Looking ahead, manufacturers are optimistic for the coming year. For 2011, 53 percent of respondents to the survey of manufacturers expect increases in production levels, while 9 percent expect decreases. Of the manufacturers who responded to the business outlook poll, 45 percent plan to boost investments in plant and equipment, while 14 percent anticipate decreases.

While the outlook for manufacturing is upbeat, home building remains slow. Nevertheless, after several years of decreases, 2010 will likely finish ahead of last year. During the first 10 months of 2010, housing units authorized in district states were up 10 percent compared with the same period a year ago. Even with this increase, district home building levels are down about 70 percent in 2010 from the height of the building boom during 2004.

Respondents to the business outlook poll were pessimistic for home building in 2011, with 40 percent expecting decreases in housing starts in their communities and 12 percent anticipating increases. In addition, the forecasting model points to lackluster performance in 2011.

Agriculture hoping for decent 2011 after stellar year

"All segments of agriculture are again currently profitable," commented a South Dakota agricultural lender in response to the third-quarter survey of credit conditions. Farmers were early into the fields and early out with this year's harvest. Almost the whole Ninth District is free from drought, although excessively wet conditions, especially in South Dakota, hurt some producers. In addition to a bumper harvest, solid output prices aided the bottom line. Meat and dairy producers faced higher feed costs, but these costs were more than offset by higher output prices. There are optimistic expectations for newly purchased capital equipment, ample soil moisture and expected higher prices for outputs in 2011.

In 2010, both farmers and ranchers gained, but for different reasons. Farmers enjoyed a nearly ideal growing season, while ranchers benefited from significantly higher prices (see table). The district is expected to see overall production increases in soybeans (8 percent), wheat (4 percent) and sugar beets (14 percent) compared with 2009, while corn output is expected to fall slightly (2 percent). Meanwhile, ethanol prices and production trended upward during the second half of 2010. While prices for several farm inputs increased during 2010, including fertilizer, chemicals and diesel, these prices were more than offset by gains in crop prices and production.

While farmers had increases in production in 2010, ranchers enjoyed rising prices (see table). Prices surged for hogs (33 percent), milk (27 percent) and steers (14 percent). The number of cattle on feed in South Dakota feedlots increased 12 percent in November 2010 from November 2009.

Again, the outlook for 2011 is upbeat, as agricultural producers invest their profits. "Capital spending will continue as farmers invest in their farming operations," a South Dakota lender said. In addition to positive returns on investment, soil moisture conditions are good and output prices are expected to rise. According to U.S. Department of Agriculture forecasts, 2011 prices for corn, soybeans, wheat, steers and hogs are expected to increase. Meanwhile, sugar beet farmers face uncertainty regarding legal rulings on planting genetically modified seeds. f

Crop and meat prices expected to increase in 2011
Average prices

	2007/2008	2008/2009	Estimated 2009/2010	Projected 2010/2011
(Current $ per bushel)				
Corn	4.20	4.06	3.55	4.80–5.60
Soybeans	10.10	9.97	9.59	10.70–12.20
Wheat	6.48	6.78	4.87	5.30–5.70

	2008	2009	Estimated 2010	Projected 2011
(Current $ per cwt)				
All Milk	18.29	12.83	16.25–16.35	15.90–16.70
Choice Steers	92.27	83.25	95.19	96.00–104.00
Barrows & Gilts	47.84	41.24	54.91	53.00–57.00

Source: U.S. Department of Agriculture, estimates as of December 2010

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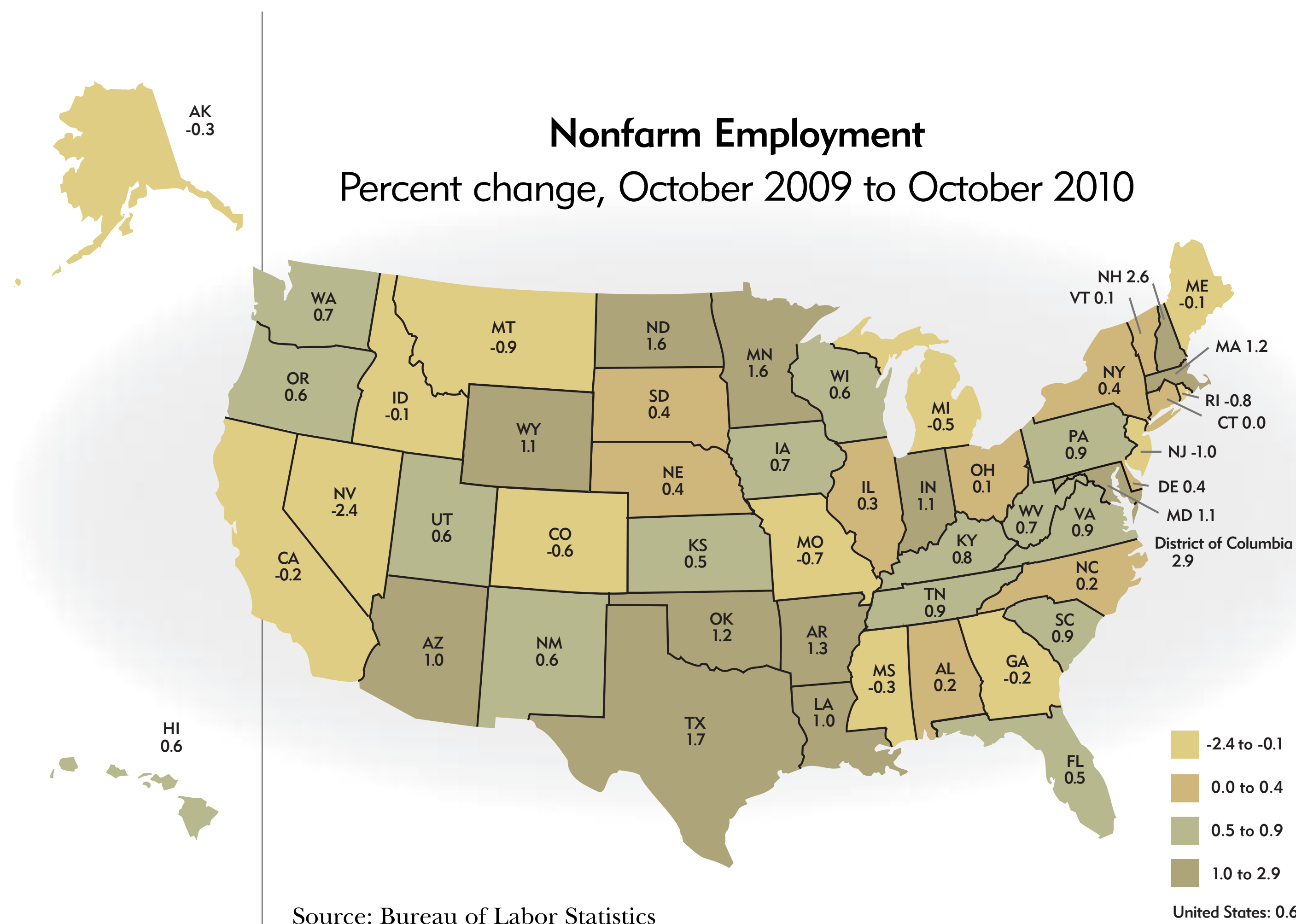

Source: Bureau of Labor Statistics