La Follette
Policy Report

Director's Perspective

On Partisan Expertise
A central part of the La Follette School's mission is to provide non-partisan expert advice and analysis to the citizens and government of Wisconsin. In an increasingly partisan world, the claim of non-partisanship is often questioned, and the mission becomes harder and harder to fulfill.

A huge issue facing Wisconsin and many other states is that of taxing and spending limits. As members of our faculty present facts on this hot issue, they are paired in public fora with advocates of whatever position seems to be inconsistent with these facts. In this contentious arena, carefully hedged, fact-based academic statements are trumped in heated debate by simple assertions to the contrary.

The seemingly neutral statement, based on data from the Census and the Bureau of Economic Analysis, that the share of Wisconsin's personal income devoted to state and local government spending has been roughly constant for 15 years, is viewed as advocacy.

In This Issue

Assessing the Global Digital Divide

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In the summer of 2000, the leaders of the G-8 met on a small island in the Pacific. The document issued—The Okinawa Charter on the Global Information Society—set forth an ambitious program to redress what was viewed as a critical and worsening gap between developed and developing countries in the diffusion of information and communication technologies. Many developing countries have computer and Internet penetration rates that are one-hundredth of the rates in North America and Europe. According to the International Telecommunication Union, even in 2002, there were fewer than six personal computers per 1,000 people in India, whereas there were more than six computers out of 10 people in the United States. While the official document forwards many lofty goals, the concluding paragraph lays out concrete objectives to:

- foster policy, regulatory, and network readiness by supporting policy advice and local capacity building that promote a pro-competitive, flexible, and socially inclusive policy and regulatory environment;

- improve connectivity, increase access, and lower costs by mobilizing resources to improve information and communications infrastructure, with an emphasis on a "partnership" approach involving governments, international organizations, the private sector, and non-governmental organizations;

- build human capacity by focusing on basic education and increased opportunities for lifelong learning, with an emphasis on development of information technology skills;

- encourage participation in global e-commerce networks by assessing and increasing e-commerce readiness and use, providing advice to start-up businesses in developing countries, and by mobilizing resources to help businesses to use information technology to improve efficiency and access to markets.

While these goals appear to be sensible, the empirical bases for these policy prescriptions are limited. How much of an effect

will increasing the quality and quantity of telecommunications access have on increasing Internet use? Would it be enough just to price telecommunications access at low rates, or is an adequate regulatory apparatus even more important? These questions have not been fully answered, partly because of the dearth of relevant data. In this study, we improve our understanding by undertaking a wide-ranging, cross-country analysis of the sources of the digital divide in computer and Internet use. In contrast to most studies, we focus on a worldwide set of countries and utilize a large set of variables to explain gaps in information and communication technologies use.

Interest in the global diffusion of technology has been spurred chiefly by arguments that it may accelerate productivity growth. However, technology expansion also may provide benefits through increased knowledge diffusion, improve political engagement, and allow developing countries to "leapfrog" traditional methods of increasing productivity. In this light, the striking international differences in information and communication technologies diffusion that exist

today may pose a serious challenge to policy-makers.

The call to emphasize narrowing the global digital divide more than other initiatives has not lacked criticism, and some researchers argue against the relevance of a digital divide. We believe that recent developments, including the acceleration of U.S. productivity growth since 1995, have buttressed the argument that information and communication technologies are important. By now, the consensus view is that the acceleration in productivity growth is manifest at the country and firm levels of analysis.

The Empirical Context

Computer and Internet use has grown rapidly during the past decade. As reported in Figure 1, there were 2.5 personal computers per 100 people in the world in 1990. By 2001, the number of computers per 100 people had climbed to nearly nine. Internet use grew from essentially zero in the early 1990s to 8.1 percent of the world's population by 2001.

The relatively high current rates of use, however, mask large disparities across regions of the world. North America is home to 61.1 computers per 100 people, whereas there is only 0.5 of a computer per 100 people in South Asia. The computer penetration rate in Sub-Saharan Africa is 1.0 personal computer per 100 people. Other regions have higher penetration rates, but none is as large as one-third the North American rate. Europe and Central Asia are home to 18.1 personal computers per 100 people.

A comparison of regional Internet penetration rates reveals similar patterns. In North America, roughly one-half of the population uses the Internet. In contrast, slightly more than 0.5 percent of the population uses the Internet in South Asia and Sub-Saharan Africa. Internet use is higher in Europe and Central Asia with 16.5 users per 100 people, but very low in other regions. Internet penetration rates in East Asia and the Pacific, Latin America and the Caribbean, and the Middle East and Africa are 6.9, 5.0 and 2.4 per 100 people, respectively.

Across countries, examining computer penetration rates also reveals interesting patterns. The United States has the highest computer penetration rate, followed closely by Canada and many European countries (Sweden, Denmark, Switzerland, Norway, and the Netherlands). Australia, Singapore, and Korea also have high computer penetration rates. All of these countries are relatively wealthy, with the exception of Korea. Lower computer penetration rates are found in very poor countries in Sub-Saharan Africa, where all of the reported countries have computer penetration rates of less than two per 1,000 people. The computer penetration rate in the United States, for example, is

Improving Performance Management in Public Programs: Lessons from the Workforce Investment Act System

Carolyn J. Heinrich

The Government Performance and Results Act of 1993 requires federal government agencies to develop annual performance plans specifying quantitatively measurable goals, performance indicators, and levels of performance to be achieved, in addition to annual reports that compare actual performance with goals. A decade after the enactment of the Government Performance and Results Act, studies are describing public agencies' experiences in developing and using outcomes-based performance measurement systems. Public managers at all levels of government are eager to learn how to make these systems work to improve agency and program performance.

Among federal government agencies, the Department of Labor has been a pioneer in the development of performance management systems. Long before the Government Performance and Results Act, the 1982 Job Training Partnership Act (JTPA) introduced performance standards for public employment and training program outcomes (e.g., job placement rate and trainee earnings) and the use of budgetary incentives based on performance to motivate agency staff. Policy-makers and public managers have drawn from studies of the JTPA system to inform the design and operation of performance standards systems in other programs.

In the Workforce Investment Act (WIA) of 1998 that replaced the JTPA program, a greater emphasis on performance accountability was described as a hallmark. This study uses the WIA performance management system as a case study to elucidate some of the challenges and prospects for making basic principles and components of performance management systems work in public agencies. The WIA system includes three elements common to its predecessor and to similar systems in other government programs:

1. Performance measures to evaluate progress toward performance goals
2. A method for setting standards and measuring performance against the standards
3. Rewards and sanctions that generate incentives for achievement of performance goals

This study assesses the effectiveness of new approaches under WIA for implementing these basic features of performance management systems and suggests lessons for future initiatives and reforms. The broader question this study addresses is: How effective are the WIA system's performance management strategies in gauging program performance and creating the right incentives to guide program administration and improve program and customer outcomes?

The Department of Labor's performance management system is guided by principles originating in "total quality management" and "reinventing government" reforms. These include measurement and analysis of results, continuous performance improvement, shared accountability, and a customer and market emphasis. This study focuses on two new features of the WIA performance management system intended to strengthen implementation of these principles:

1. A new approach to setting performance standards that involves the negotiation of performance targets with states
2. New performance measures of customer (participant and employer) satisfaction

Through the analysis of data from the first three years of WIA's performance management system, this study produces general lessons about the implementation of performance management systems and strategies, and more specific feedback for the Department of Labor on the effectiveness of the WIA system.

Background on WIA and its Performance Management System

Since the inception of the JTPA program, federal workforce development programs have sought to engage the private sector and to promote strong local governance so employment and training services can

be tailored to meet local employer and worker needs. Although the WIA program retains the basic structure of the JTPA program, important changes were made in the eligibility criteria for workforce development services, the types of available services, and the processes for performance accountability under WIA (see Box 1).

Table 1 shows current WIA performance measures and indicates which are new. The addition of participant and employer satisfaction performance measures was intended to make the workforce development programs broadly accountable to their primary customers: participants and employers. Other new measures are the credential rates for adults, dislocated workers, and older youth. These indicate attainment of degrees, certification of skills, or completed training.

The Department of Labor directed states to develop management information systems for tracking performance and to use unemployment insurance records to compute the employment and earnings outcomes of participants. Although some states modified their JTPA management information systems, others developed new collection procedures and mechanisms. As the General Accounting Office (GAO; the agency was renamed the Government Accountability Office in July 2004) reported, states struggled to meet Department of Labor requirements, including:

- Maintenance of participant lists to supplement data collection through follow-up surveys
- Collection of performance data at different time points for different measures
- Use of different participant subgroups (e.g., employed at registration, type of program, or level of service received) in calculating performance outcomes.

The negotiation of performance standards is a key feature of the WIA performance management system and a primary focus of this study. States negotiate with the Department of Labor and local service delivery areas to establish performance targets, using estimates based on historical data that are similarly intended to take into account differences in economic conditions, participant characteristics, and services delivered. The pretext for changing to a system of negotiated standards was to promote "shared accountability," described as one of WIA's guiding principles. States' reports of procedures to determine performance standards suggest that there is substantially greater discretion and variation in the processes and types of information used to establish the state-level standards.

Because WIA offers strong incentives (rewards and sanctions) for performance outcomes, the data collected and measures used should be comparable across states and localities. The level of the negotiated standard is critical in the determination of performance bonuses and sanctions. To be eligible for an incentive grant up to $3 million, a state is required to achieve at least 80 percent of the negotiated performance level for all 17 measures. States that do not meet performance goals for two consecutive years may be penalized with up to a 5 percent WIA-grant reduction.

Reflecting increased emphasis on continuous performance improvement in the WIA system, the targeted levels of performance that states negotiated increase during each of the first three years of WIA (program years 2000-2002) for most states. Although the law allows states to renegotiate standards in cases of unanticipated circumstances, the data show that few states exercised this option in the first three years of the program.

The history of the JTPA performance management system suggests important reasons for concern about the determination of performance standards and the incentives they create for program managers and staff. In the mid- to late 1980s, reports described how administrators and caseworkers limited access to services for more disadvantaged applicants to improve measured performance, a practice more widely known as "cream-skimming." Other research showed how program managers organized their "trainee

Box 1: Changes to Public Employment and Training Programs

- WIA makes available a broader range of core services, such as labor market information and job-search assistance, to the general public, not solely to those meeting certain criteria.
- Individuals' access to more intensive levels of service (e.g., comprehensive assessment and case management, vocational, or on-the-job training) proceeds sequentially under WIA if they fail to achieve success in the labor market following receipt of basic services.
- Services are typically provided through the Department of Labor's one-stop centers, with partners that include the federal departments of Education; Health and Human Services; and Housing and Urban Development. The Department of Labor requires monitoring and tracking participants who receive "substantial staff assistance" in WIA programs.
- WIA established performance measures and requirements for using specific types of data to evaluate performance.
- Under JTPA, the Department of Labor established expected performance levels using a regression-based model with national departure points. WIA introduced a process to determine performance standards through negotiations with state officials.

inventories" and timed partici-pant program exits to maximize year-end performance levels. Other studies associated a shift to shorter-term, less intensive service provision under JTPA with the pressure to produce more immediate, low-cost job placements.

A 2002 GAO report notes many states indicated that "the need to meet performance levels may be the driving factor in deciding who receives WIA-funded services at the local level." Some local areas limit access to services for individuals perceived to be less likely to get and retain jobs. How the WIA performance management system might be generating incentives for these kinds of unintended behaviors is important to understand.

Determination of Performance Standards

The Department of Labor mandated that each state prepare a five-year plan describing how it would implement WIA programs. Each plan includes a section on performance management that addresses how:
- performance standards were determined and the levels established for each of the 17 core indicators for program years 2000-2002;
- management information systems and reporting processes tracked performance;
- performance data would be disseminated and used to improve services and customer satisfaction.

The Department of Labor outlined guidelines for performance standards negotiations and developed parameters for use as baselines in negotiations. More than half of the states used some baseline performance measures to determine appropriate levels for the negotiated performance standards.

About one-half of the states explicitly indicated that negotiations

Table 1: Percent of States Meeting or Exceeding Negotiated Performance Targets in Program Years 2000-02

* denotes new measure under WIA	Percentage of states meeting or exceeding negotiated performance target in each program year		
Performance measure or standard	2000	2001	2002
Adults who obtained jobs by end of first quarter after program exit, excluding those employed at registration	56.7	66.5	61.5
Of adults with jobs in first quarter after program exit, those with jobs in third quarter after exit	54.0	60.7	57.7
Of adults with jobs in first quarter after program exit, their post-program earnings increases relative to pre-program earnings.	49.3	64.6	48.1
* Of adults who received WIA training, percentage employed in first quarter after program exit and received credential by end of third quarter after exit.	36.7	45.6	46.2
Dislocated workers who obtained jobs by end of first quarter after program exit, excluding those employed at registration	52.7	65.5	55.8
Of dislocated workers with jobs in first quarter after program exit, those with jobs in third quarter after exit	42.0	58.7	51.9
Of dislocated workers with jobs in first quarter after program exit, percentage of pre-program earnings earned post-program	54.7	74.8	61.5
* Of dislocated workers who received WIA training, percentage employed in first quarter after exit and received credential by end of third quarter after exit	36.7	58.7	55.8
Youth ages 19-21 not enrolled in post-secondary education or advanced training and who obtained jobs by end of first quarter after exit, excluding those employed at registration	58.7	63.6	42.3
Of youth ages 19-21 with jobs in first quarter after program exit and not enrolled in post-secondary education or advanced training in third quarter after program exit, percentage with jobs in third quarter after exit	52.0	61.2	48.1
Of youth ages 19-21 with jobs in first quarter after exit and not enrolled in post-secondary education, or advanced training, post-program earnings increased relative to pre-program earnings	52.7	64.6	59.6
* Percentage of youth ages 19-21 in employment, post-secondary education, or advanced training in first quarter after exit and received credentials by end of third quarter after exit	29.3	31.6	23.1
Retention rate for youth 18 and younger in employment, post-secondary education, advanced training, or apprenticeships in third quarter after exit	38.0	59.2	57.7
Rate that youth 18 and younger attain at least two goals related to basic skills, work readiness, and employment training	72.0	69.4	53.9
Rate that youth 18 and younger earn secondary school diploma or recognized equivalent, such as GED	25.3	45.6	50.0
* Employer satisfaction measured by average of three statewide survey questions that asked whether services satisfied employers, if customer expectations were met, and how services compared to ideal set of services	45.3	75.7	69.2
* Participant satisfaction measured by average of three statewide survey questions that asked whether services satisfied participants, if customer expectations were met, and how services compared to ideal set of services	51.3	78.6	76.9

with local workforce development officials were important in determining performance standards, and many of these also used one of these types of baseline data to inform discussion. States were instructed to consider differences in economic conditions, participant characteristics, and services provided. For a majority, these adjustments to standards were made informally during the review of baseline information and negotiations. (See Box 2.)

Descriptive statistics on the levels of performance standards states set using Department of Labor data on the final negotiated standards confirmed the existence of considerable variation across states in the levels of performance standards established through the negotiation process. For about one-third of the states, some of the targets are above national goals, and some are below. The negotiated standards are mostly or all above the national goals for another third of these states, although only four had standards set higher than all of the national targets. The national goals the Department of Labor established for WIA program years 2000-2002 reflected the articulated objective of continuous performance improvement.

The performance targets established in the states' five-year plans likewise reflected the continuous performance improvement objective. These planned targets and final negotiated standards for the first three years of WIA show that the negotiated standards, on average, increased about 1 to 2.5 percentage points between program years 2000 and 2001 and between 2001 and 2002. In addition, the mean expected increase in performance levels was larger between program years 2001 and 2002 than between program years 2000 and 2001 for most standards. The states, in effect, set target levels that not only required them to improve over time, but that the magnitude of improvements increase from year to year.

Adjustments to Performance Standards

Many states used baseline performance data from JTPA program years 1999, 1998, 1997, or earlier to establish performance standards for the first year of WIA and then built in anticipated performance improvements for the two subsequent years. Economic conditions changed significantly, however, between the pre-WIA period and first three years of WIA implementation. Between 1998 and 1999, unemployment rates were declining on average, with a median decline of 0.2 percent. Seventy-five percent of all states experienced a decline. This pattern continued in the year before WIA (1999 to 2000), with median decreases in unemployment of 0.3 percent. Between 2000 and 2001, however, this trend reversed. More than 75 percent of the states experienced an increase in unemployment rates during this year, with a median increase of 0.7 percent. Increases in unemployment rates were even greater

Box 2: Examples of States' Approaches to Establishing Performance Targets

Georgia used program year 1998 state performance records combined with the seven-state projected national averages in negotiations with regional office representatives and local officials to determine performance targets for WIA's first three years, program years 2000-2002.

Indiana reported that it used program year 1999 data to determine the performance standards, but it did not have time for consultations with local workforce development officials in setting the goals. Only first-year (program year 2000) goals were presented in Indiana's five-year plan.

Some states, such as **New Hampshire** and **Ohio,** used unemployment insurance data from earlier periods (program years 1994-1997) combined with Department of Labor performance data available in the Standardized Program Information Reports to set performance levels.

Wisconsin reported using program year 1997 data and the seven-state projected averages in negotiations with local officials to set standards. A comparison of these data in Wisconsin's five-year plan shows that when Wisconsin's program year 1997 baseline was above the projected national averages, projected averages were established as the targets. When Wisconsin's baseline numbers were below projected national averages, baseline values were typically set as targets. **Washington, Nebraska,** and others followed a similar process.

It was rare, as in the case of the state of **New York**, that all of a state's performance baseline measures were above the national targets and were set as the standards for program year 2000.

Only **Texas, Maryland,** and the **District of Columbia** reported using statistical models to determine performance standards. The District of Columbia and Maryland contracted with Mathematica Policy Research to conduct the statistical analysis for establishing performance targets.

Arkansas was unique in setting each of its standards (with the exception of the earnings change measures) exactly 1 percentage point above the national goals in the first year.

Three states established performance standards that were all below national goals. **North Carolina,** for example, used program year 1997 baseline data in its determination of performance standards, and all standards were set significantly below the state baseline measures and national goals. A few states, such as **Alabama,** said they set some standards lower than baseline values to allow time for adjustments to the new system.

between 2001 and 2002, with a median increase of 0.8 percent and all states experiencing an increase in unemployment, except one that was unchanged.

Thus, at the same time that unemployment rates were increasing and creating adverse labor market conditions for trainees in the first three years of WIA, the standards for performance achievement in the program were increasing. (See the example in Figure 1.)

Despite these dramatic changes in economic conditions, fewer than a third of the states' final negotiated standards were changed from those in their five-year plans. The small number of states that made changes were most likely to lower their older youth or displaced worker standards. The WIA guidelines directed that the negotiated performance targets should take into account local economic conditions, participant characteristics (which are generally more stable over time), and services delivered in the states. However, renegotiation of standards appears to be more of an exception than a routine procedure.

This study examines the relationship of the final negotiated (or renegotiated) standards to local variables. The question of interest in this comparison was: Do the standards negotiated (through mainly informal procedures) appear to adjust for differences across states in participant population and service characteristics?

Analyses showed a few consistent and statistically significant associations among negotiated performance standards and participant characteristics.

- States with higher percentages of Hispanic and limited English proficiency populations had significantly lower performance targets for all adult, dislocated worker, and youth performance measures. In addition, a more highly educated participant population was associated with higher standards for entered employment rates, although unemployment rates in 1998 were the most important factors influencing entered employment rate standards.
- Three states had performance targets in their five-year plans that were below the national goals. California had the largest proportion of Hispanics among its program year 1998 participant population, with 34.4 percent. Nearly one-fourth of Rhode Island's participants were Hispanic. North Carolina had the fastest growing Hispanic population, with a more than 400 percent increase between the 1990 and 2000 U.S. censuses.

Although documentation is not available to confirm that adjustments are made deliberately in negotiations to account for specific baseline characteristics, the empirical findings suggest this may be occurring. The analyses presented next compare the negotiated performance targets with the states' reported actual performance in eight quarters under WIA for which performance levels have been reported, the second quarter of program year 2000 through the first quarter of program year 2002. An examination of how the states' performance levels and differentials between their targeted and actual performance vary across local economic, participant, and service factors will provide some indication of how effectively the new system of negotiated performance standards works.

States' Performance Under WIA

Four sets of analyses were conducted to compare states' workforce development performance to the negotiated standards and other relevant variables:

- The relationship between states' attained performance levels and baseline participant and area characteristics was investigated to determine if associations exist between performance and variables for which adjustments to standards are intended to be made.
- The differential between states' performance and their negotiated standards was computed to examine how these differentials varied across states and by program year. The analysis explores whether states' performance continually improved over time and discusses the factors that appeared to affect the magnitude of these differentials.
- A third set of analyses examined the relationships among the differentials between states' performance and their negotiated standards and their baseline participant and area characteristics. If, in fact, the process of negotiating standards effectively adjusts states' standards to account for local participant and area characteristics, these relationships should be weaker than those in the first set of analyses.
- A final set of analyses focused on the new participant and employer satisfaction performance measures, investigating the associations between these measures and the more objective data on employment, earnings, retention, education, and skill attainment of WIA participants.

Figure 1: Performance goals and local labor market conditions

	Program year		
	2000	**2001**	**2002**
Mean entered employment rate standard for adults	66.44	69.17	70.94
Mean unemployment rate	3.94	4.59	5.35

State Characteristics and Performance

The relationship between states' quarterly performance on the 17 standards and states' baseline participant population characteristics and economic conditions over time was assessed. Unequivocally, the analyses showed that lower performance levels correlated with greater percentages of Hispanics and of people with limited English proficiency as program participants. This finding is particularly interesting given the observation that states with higher proportions of Hispanics and limited English proficiency participants in their populations negotiated significantly lower performance targets. One might conclude that even though adjustments were not systematically made for these characteristics in the JTPA performance management system, WIA officials involved in the negotiations appeared to have information that indicated these groups would have poorer labor market outcomes.

There were also some weakly significant, negative associations between states' unemployment rates in 2000, 2001, and 2002 and their attained performance levels. As unemployment rates increased, performance in the WIA programs declined.

States' Performance Relative to Negotiated Targets

The difference between a state's attained performance level in a given quarter and the performance target for that particular program year was computed for each of the 17 performance standards during the eight quarters for which performance data were available. A positive differential would indicate that, on average, states were exceeding their negotiated targets. Relatively large standard deviations associated with each of these measures suggested considerable variation among the states in their performance achievements. Table 1 shows the proportion of states that met or exceeded performance targets in the second, third, and fourth quarters of program years 2000 and 2001 and the first quarter of program year 2002.

Simple correlations among the computed performance differentials for the 17 measures showed nearly all positive correlations. Program managers should like to see this result, as it suggests that there are not likely to be trade-offs in directing resources toward improving specific aspects of program performance.

Examination of performance across the different

measures, however, makes clear that states struggled to achieve success on some dimensions more than others. A majority consistently failed to meet goals for the new credential rate measures (indicating the attainment of a degree, the certification of skills, or training completed) for adults, dislocated workers, and older youth. A majority of states also failed to meet targets for youth diploma rates, although performance against this standard improved over time, even though states' targets were set at higher levels in 2001 and 2002.

Of potentially greatest concern, however, is the negative turn in performance going from program year 2001 to the first quarter of program year 2002. A quarter-by-quarter examination of the average differentials indicates that up through the last quarter of program year 2001, the performance differentials were positive, with the exception of the credential rate and youth diploma rate measures. In the first quarter of 2002, states were below targets on nine of the 17 measures.

Table 1 shows that the proportion of states meeting or exceeding their performance targets dropped between program years 2001 and 2002 for nearly all measures. Some of these declined dramatically, such as the 21 percent decrease in the proportion of states meeting their targets for youth ages 19-21 years who obtained jobs and were not enrolled in post-secondary education or advanced training by the end of the first quarter after they exited their programs, excluding those who were employed when they registered for their programs. This is not surprising given that unemployment rates were increasing rapidly during 2001-02 for all states, at the same time that states were aiming toward higher performance goals.

There was no performance measure for which all of the states met 80 percent of their targeted goal in any given program year. In 2000, four states met the minimum requirements for all 17 performance measures. In 2001, nine states met their 80 percent target levels for performance, and nine states (although not the same ones) were meeting all minimum performance requirements in the first quarter of program year 2002. Thirty-eight states were identified as failing to achieve at least 80 percent of their performance goals (for all measures) for two consecutive years.

States' Performance Relative to Negotiated Targets and Local Participant and Area Characteristics

If the states' initial processes for adjusting performance standards through negotiations worked as intended, one would expect to see fewer or weaker relationships between the performance differentials (attained performance minus negotiated standard) and baseline participant and area characteristics. The analysis did indeed show substantially fewer statistically significant relationships. At a minimum, states' negotiated standards appear to have accounted for the percentages of

their populations that were Hispanic or of limited English speaking proficiency, and the education levels of their participant populations at the baseline period. However, unemployment rates were consistent and negative predictors of whether states met their performance targets. The higher the unemployment rate, the more likely states were to miss their goals. This suggests again that states were not prepared or in a position to adjust for dramatic economic changes that led to significant risks of failure to meet performance targets during an economic downturn.

Customer Satisfaction Performance

The WIA measures of participant and employer satisfaction were intended to add a dimension to performance evaluation that makes program administrators accountable to the primary customers of WIA services. Customer satisfaction measures, described as more subjective measures of performance, have received mixed reviews in terms of their value in providing useful feedback to program administrators. Research suggests that they typically do not correlate strongly with more objective measures of program performance. This is not necessarily a problem, however, if these measures are picking up on other dimensions of service effectiveness that are within the purview of program administrators to affect or change.

There were no statistically significant associations between customer satisfaction performance and other WIA performance outcomes. One might speculate these two measures are picking up on other more subjective (or administrative) dimensions of performance that do not overlap with the labor market outcome measures.

However, the specific wording of the questions used to assess customer satisfaction makes it practically impossible to determine which aspects of the WIA program or post-program experiences participants or employers might have been rating. Three questions are asked of participants and employers statewide, with respondents rating their satisfaction levels on a scale of 1 (lowest satisfaction) to 10:

1. Was the participant (employer) satisfied with services?
2. Did the services meet the expectations of the customer?
3. How well did the services compare to the ideal set of services?

Since customer satisfaction data are collected according to WIA rules in the second or third quarter after a program participant exits, this may broaden the scope of responses, covering time during and following the program to evaluate service effectiveness. Further, because customer satisfaction performance is measured at the state level rather than at the local board or provider level, feedback for managers attempting to improve programs locally is limited.

Discussion

The GAO's interviews with WIA program administrators confirmed concerns across states about meeting performance targets. The results of empirical analyses, showing that a majority of states were at risk of sanctions for failing to meet performance requirements, might go a long way toward explaining WIA program administrators' great dissatisfaction with the new performance management system. The GAO reported in 2002 that all state program administrators believed that some of the performance targets were too high to meet and that the process of performance standards negotiations did not allow for adequate adjustments to varying economic conditions and demographics. In addition, states noted the lack of good baseline data to use in establishing targets for the new credential rate and customer satisfaction measures. This study substantiates all these concerns.

In a system where the rewards (up to $3 million in grants) and sanctions (up to a 5 percent reduction in grants) could have important implications for operating budgets, performance measures should provide feedback to managers, staff, and other service providers about the effectiveness of improvements to service quality and participant outcomes. The WIA performance management system, like the earlier JTPA system, appears instead to be generating inappropriate incentives for program managers to improve measured performance rather than service access or quality.

These difficulties and setbacks indicate ongoing challenges that public managers face as they design and implement outcomes-based performance management systems in government programs. Particularly in social programs, it is nearly infeasible to distinguish precisely the contributions of program services and management to customer outcomes from the influence of other local factors that can aid or harm program performance. Thus, as standards and stakes for performance outcomes are raised, that public managers sometimes turn to counterproductive means of achieving higher levels of measured performance at the expense of other program goals is not surprising.

No matter how advanced our management information systems for tracking performance or our statistical models for adjusting for external factors, some degree of error is likely to occur in our measures. How can we ensure against unfairly applied sanctions or denied rewards? Policy-makers and public managers will have to continue to ask these kinds of questions in ongoing efforts to improve public program outcomes through the use of performance management systems. ◆

nearly 550 times larger than the penetration rate in Ethiopia. Two countries in East Asia and the Pacific, Cambodia and Myanmar, also have extremely low computer penetration rates. In Cambodia, there are 0.15 computers per 100 people, and in Myanmar there are 0.11 computers per 100 people.

Internet penetration rates generally follow the same patterns across countries as computer penetration rates. As expected, the ranking of countries by computer penetration rates is roughly similar to the ranking of countries by Internet penetration rates, although there are some interesting distinctions. Most notably, Korea and Sweden have Internet penetration rates that are slightly higher than the U.S. rate. Also, New Zealand (46.1) and Finland (43.0) enter the list of top 10 countries, displacing Switzerland and Australia.

Determinants of Computer Use

This study focuses on computer penetration rates and country-level Internet use rates and includes four main sets of independent variables. The first set features conventional infrastructure variables, such as main telephone lines per capita, two measures of Internet use costs (monthly telephone subscription charges and the cost of a three-minute call), and electricity consumption. The second set includes demographic variables, such as shares of the population younger than 14 years and older than 65 years, and portion of the population in urban centers. The third set includes economic variables, such as income per capita and human capital, which is measured as years of schooling or the literacy rate. The fourth category includes dimensions of institutional quality or policy, such as explicit measures of regulatory quality or trade openness. Regulatory quality is high when systems are transparent, fair, and not arbitrary. As an index, it includes measures of the incidence of market-unfriendly policies. Often construed as an economic characteristic, trade openness may also be viewed as an indicator of how high trade barriers are. Because trade barriers tend to correlate with other domestic impediments to commerce, trade openness is sometimes indicative of a less-regulated business environment.

In considering infrastructure as a determinant of computer use, one surprising result is the importance of telephone-line density. A 1 percentage point increase in this variable is associated with a 0.4 percentage point increase in PC penetration. This result is hard to interpret, unless one assumes computers and telephone lines are complementary—the prevalence of computers and telephone lines increases together. Telephone lines may be important for accessing the Internet, one of the most common uses of computers. Another explanation is that countries with well-developed communication infrastructure are likely to have other attributes that encourage computer use. The consumption of electricity seems to be less important in determining computer use in countries that use more electricity. However, in countries with per-capita electricity consumption of 6,000 kilowatt-hours or less, computer use and electricity consumption are related: Computer use rises 1.8 percent for each 1,000 kwh increase per capita. In countries where the per-capita electricity consumption is more than 6,000 kwh, electricity consumption does not seem to correlate to computer use.

Demographics relate to computer penetration as expected. A higher proportion of youth is associated with a greater rate of computer use, while a lower rate occurs with a higher proportion of seniors. On the other hand, an unexpected finding is that the greater the proportion of an urban population, the lower the computer penetration rate. While this result is consistent with the global village theory that

Figure 1: World Computer and Internet Penetration Rates

Access to personal computers and use of the Internet increased rapidly in the 1990s.
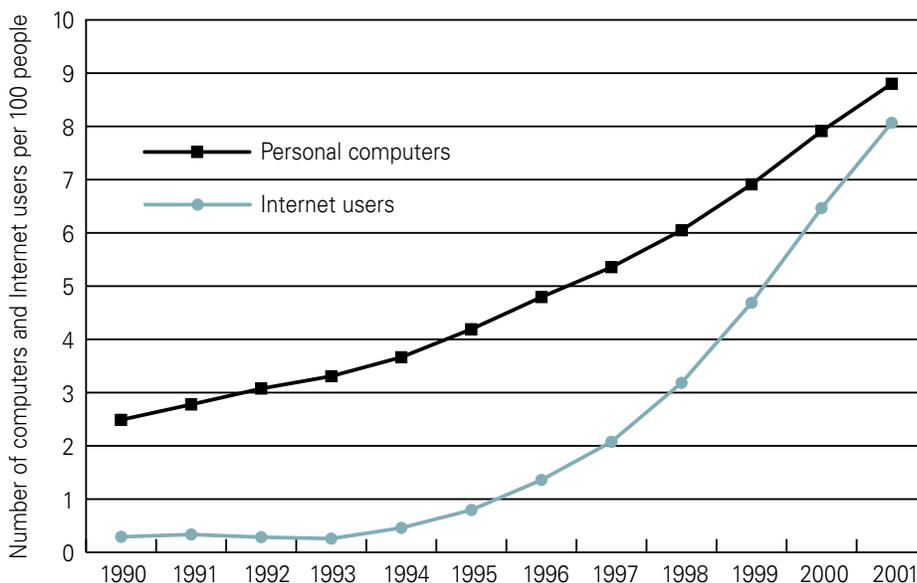
suggests that the Internet will be more heavily utilized in rural areas to overcome isolation, it stands in opposition to an equally plausible urban density theory that argues that the adoption of advanced technologies will be concentrated in cities, since such metropolitan areas benefit from concentrations of highly educated workers and commensurately lower costs of innovation.

Table 1 shows the data for change in computer penetration and Internet use rates as each of the variables changes. As expected, income per capita is a powerful determinant of computer use; each $1,000 increase in per-capita income is associated with more than a 1 percentage point increase in the computer penetration rate. Human capital also appears to be important. A one-year increase in average schooling results in a 1 percentage point increase in computer penetration. Other research on determinants of computer ownership also finds strong relationships between computer ownership and income and education. The positive relationship between per-capita

income and computer penetration rates may be partly due to the loosening of the budget constraint, changing preferences, or the effects of liquidity constraints that bind much more at lower income levels.

In the last set of variables, we find that regulatory quality is statistically important. This will be a recurring theme—an index of the economic policy environment shows up as a statistically important determinant (it will also turn out to be economically important). Unlike the outcome in many other empirical studies of growth, openness to international trade does not appear to be an important factor in computer use.

Eliminating or substituting variables does not change which elements determine computer use. Dropping the telephone access cost and electricity consumption variables does not change the basic results; nor does substituting the literacy rate for the years of schooling. As more countries are analyzed, the relationships remain positive and statistically significant. This leads to the conclusion that the institutional features of the policy regimes, such as the efficacy of regulatory quality or the protection of property rights, are important to expanding computer use.

Table 1: Determinants of Computer, Internet Use, 1999-2001

Many factors influence the number of computers and Internet use per capita in a given country.

Variables determining information technology use	Computer penetration	Internet use
Infrastructure-related		
Main telephone lines per 100 people	0.355*	0.108
Monthly telephone subscription charge ($1)	-0.002	-0.030
Cost of three-minute local call ($1)	-4.313	-1.044
Electricity consumption (kwh per capita)	0.002*	0.002*
Demographic		
Population younger than 14 years	0.613*	0.751*
Population older than 65 years	-0.587	0.117*
Urban population	-0.156*	-0.113*
Economic		
Gross national income per capita ($1,000)	0.964*	0.938*
Schooling (one year)	0.954*	0.910
Institutional and Openness		
Regulatory quality	3.813*	6.559*
Trade in goods (% of gross domestic product)	-0.010	-0.034*
Average penetration	14.14	12.38
Sample size	227	228

Notes: * denotes statistical significance at the 5 percent level. Numbers associated with explanatory variables are for a 1 percentage point change, unless otherwise noted; dollars are adjusted for purchasing power parity. Computer penetration and Internet use rates given in number per 100 persons. Source: Menzie Chinn and Robert Fairlie, 2004, "The Determinants of the Global Digital Divide: A Cross-Country Analysis of Computer and Internet Penetration," National Bureau of Economic Research Working Paper No. 10686 (August). http://www.nber.org/papers/w10686.

Determinants of Internet Use

We now take up the results for Internet penetration rates, considering the same variables analyzed to determine computer use. Several variables that determine computer penetration are also important factors in Internet penetration. These include electric power consumption, the portion of the population younger than 16 years, the proportion of the population that is urban, per-capita income, and regulatory quality. Poor regulatory quality—arbitrary or non-transparent regulations—limits Internet use more than computer penetration. Human capital is not statistically significant, although as years of education and literacy rates increase, so does Internet usage.

One finding that counters conventional wisdom is that telephone density and two proxies for the price of Internet use—the monthly telephone subscription charge and the average cost of a three-minute local call—are not statistically significant. These results may differ from those reported in other studies because we examine a more recent period and a larger sample of countries. We do not find that high per-minute charges phone charges limit Internet use more than high monthly subscription charges, although this does not mean the effect is unimportant. Rather, our finding may indicate the effect is swamped by other factors in our broader cross-country sample, which includes some very low-income countries.

Like computer penetration, Internet use decreases as the proportion of a region's urban population increases. This finding suggests that after controlling for telephone density in a country, the Internet

substitutes for the benefits accruing to operating in an urbanized environment, a result consistent with the global village theory that suggests that Internet use will be more heavily utilized in rural areas. This contrasts with the urban density theory that argues that the adoption of advanced technologies will be concentrated in cities. Another finding is that trade openness affects Internet use. Electricity consumption is statistically significant, while the human capital variable is borderline. The results generally do not change when one variable is substituted for another.

Sources of the Global Digital Divide

The analysis reveals that factors such as income, human capital, telecommunications, electricity, and regulatory quality contribute to the global digital divide. Countries with lower per-capita incomes, literacy, education, electricity consumption, and telephone lines have fewer computers and less Internet use per capita. The analysis, however, does not identify the relative importance of these factors in contributing to the

differences in computer and Internet penetration rates across regions of the world. Another unanswered question is whether the explanations for low technology penetration rates differ across regions of the world.

A second analysis, illustrated in Figure 2, uses the United States as the reference group and compares its computer penetration and Internet use rates with those of other regions. The difference in rates illustrates the gaps between the United States and each region. The analysis focuses on the major factors of income per capita, telephone density, electricity use, human capital, regulatory quality and the actual penetration level, while the other factors are aggregated into the "Other" category.

Computer penetration

In the United States, the computer penetration rate is 56.9 percent. In Europe and Central Asia, the rate is 33.5 percent, which means the gap is 23.4 percent. Of this gap, the largest single component is per-capita income, 13.2 percentage points. Next most important is the difference in telephone density (6 percentage

Figure 2: Comparison of the Determinants of Information Technology Use

The importance of variables contributing to the digital divide differ by region. These charts show the variations from the United States.

A: Factors in the rate of computer penetration
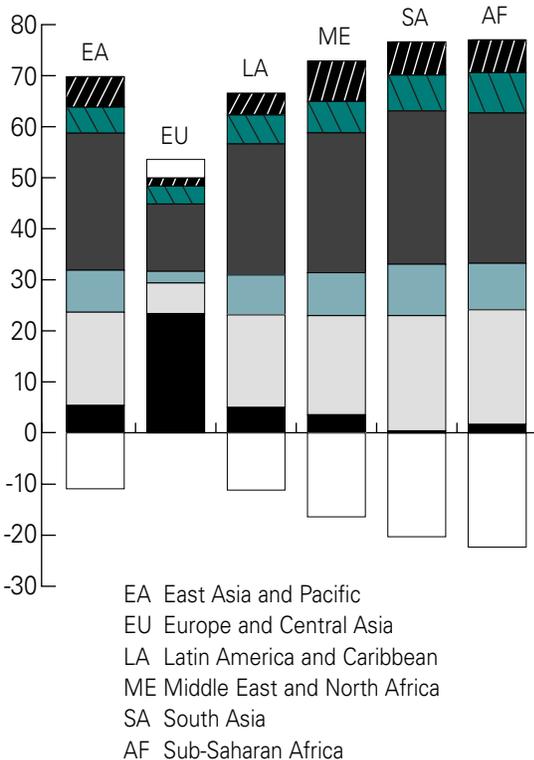
B: Factors in the rate of Internet use

EA East Asia and Pacific
EU Europe and Central Asia
LA Latin America and Caribbean
ME Middle East and North Africa
SA South Asia
AF Sub-Saharan Africa

Regulatory quality
Human capital
Per-capita income
Electricity consumption
Telephone density
Actual computer or Internet penetration rate
Other factors
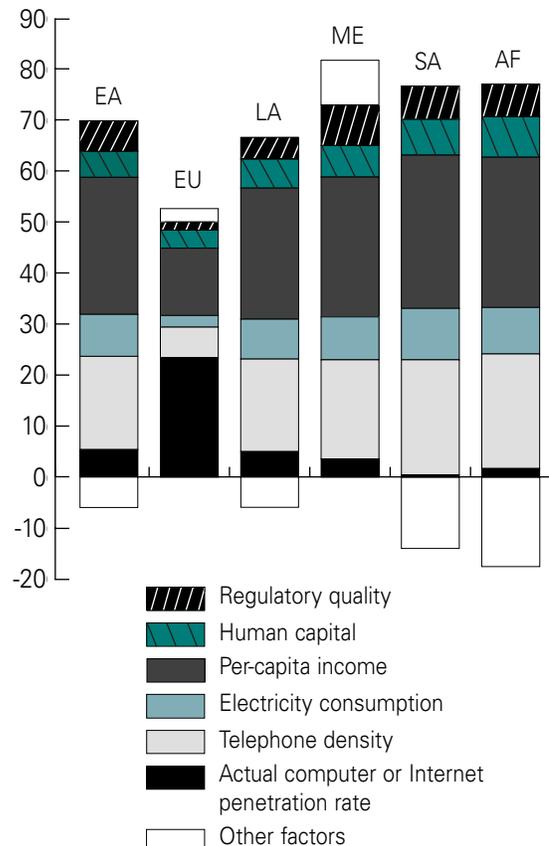
points) and human capital (5.7 percentage points). Figure 2A shows these gaps.

In general, the largest single factor contributing to disparities in penetration rates is per-capita income, which is not surprising considering the enormous disparities in income levels across regions. For all regions, except Europe and Central Asia, differences in income explain about half of the gap in penetration rates. The three-year average per capita income adjusted for purchasing power parity in the United States is $33,645. In contrast, per capita income is $3,077 in Sub-Saharan Africa and $2,473 in South Asia. The income gap is likely affecting computer penetration by way of the cost relative to income. A personal computer costing $1,500 represents half of a person's average annual income in Sub-Saharan Africa and more than half of her or his annual income in South Asia.

In Europe and Central Asia, income explains 17.9 percent of the gap, and slightly more than a third of other regions' gaps. These results suggest partial truth in the assertion that the global digital divide is a manifestation of a long-standing disparity in telecommunications access. However, the effects of differences in telecommunications infrastructure are not due to costs, at least as measured by monthly subscription and per-minute telephone charges. The contributions from these factors are essentially zero for all regions.

Regional differences in electricity consumption also contribute to the global digital divide. This factor explains 6.8 percent of the gap between Europe and Central Asia and the United States, and from 15.1 to 17.8 percent of the gaps between other regions and the United States. Countries in which relatively few people have access to reliable electricity provide limited opportunities for the use of personal computers. In this sense, per-capita electric power consumption may understate the true contribution of access to electricity to the regional gaps in computer penetration rates.

The United States, Europe, and Central Asia have age distributions that are disadvantaged in terms of computer penetration rates relative to the rest of the world. The population in the United States is made up of a lower percentage of children (ages 0-14) and a higher percentage of the elderly (65 and older) than the rest of the world, with the exception of Europe and Central Asia. The older population distribution in the United States combined with the negative relationship between age and computer penetration widens the technology gaps. In other words, if other regions had age distributions more similar to that of the United States, the gaps in computer penetration rates would be even larger. The one exception is for Europe and Central Asia, where the larger population of older adults explains part of the computer penetration rate gap.

The percentage of the population living in urban areas also affects computer penetration: the more rural a region, the greater the penetration rate, holding everything else constant. The greater proportion of rural populations in regions outside the United States partially offsets the digital divide, because of the United States' greater urban population and its lower computer penetration. The computer penetration rate gaps with the United States would be 6.1 to 13.7 percent higher if these regions had similar percentages of the population living in urban areas. The two exceptions are Europe and Central Asia, and Latin America and the Caribbean, which have comparably sized urban populations.

Human capital disparities, as measured by years of schooling, are important in contributing to the global digital divide. Differences in education explain from 9.9 to 14.4 percent of the gaps in computer penetration rates. The average number of years of school range from 3.7 years in Sub-Saharan Africa to 8.3 years in Europe and Central Asia. In contrast, the average years of schooling in the United States is 12.1 years. Computers apparently require substantial levels of education for use, limiting demand in countries with relatively low levels of human capital, a finding that confirms those of previous studies. This is significant because it indicates that even after controlling for differences in income, human capital disparities help create a global digital divide.

Regional differences in regulatory quality appear to contribute greatly to the global digital divide. These differences explain roughly 10 percent of the gap in computer penetration rates for most regions. In the Middle East and North Africa, differences in regulatory quality explain nearly 15 percent of the gap in computer penetration. In Europe and Central Asia where regulatory quality is more similar to the United States this factor explains only 4.7 percent of the gap. Apparently, poor regulation has a negative net effect on technology adoption, partially explaining why many developing countries have low computer penetration rates.

Finally, openness to trade, as measured by the percent of gross domestic product represented by trade in goods, is not an important factor in contributing to the global digital divide. For none of the regions can this factor explain more than 1 percent of the gap in computer penetration rates.

Internet penetration

Figure 2B reports the results for contributions to regional/U.S. gaps in Internet penetration rates. The most important factor contributing to the gaps is income. Regional differences in gross national income

> **Regional differences in electricity consumption and regulatory quality affect the digital divide.**

per capita explain from half to two-thirds of the Internet penetration gaps. Although the contributions to the Internet gaps are larger than the contributions to the computer gaps in percentage terms, the actual contributions are similar, though access to telephones plays a smaller role in contributing to the regional gaps in Internet penetration rates. Telephone lines per capita explain 7.8 percent to 16.1 percent of the gaps in Internet penetration rates. Furthermore, regional differences in monthly subscription or per-call charges explain essentially none of the gap in Internet penetration rates. The global digital divide measured in Internet use appears to be only partly due to long-standing disparity in telecommunications access and is not related to differential telecommunications costs.

> **Investments in infrastructure and policy that is transparent, fair, and not arbitrary will close the digital divide.**

Access to electricity is also crucial to Internet use. Regional differences in electric power consumption explain 10.5 percent of the Internet penetration rate gap between Europe and Central Asia, and the United States, and 20.9 percent to 25 percent of the Internet penetrations rates between other regions and the United States. The actual contributions are similar to those from the computer penetration.

The age distributions of the United States, Europe, and Central Asia limit the overall magnitude of the global digital divide. The effect, however, is muted because of the small percentage of children in these areas and not because of the large percentage of elderly people, compared to other regions of the world. The relatively urban United States also lessens the global digital divide. The Internet penetration rate gaps would be larger for most regions if the United States was less urban. However, this effect is fairly limited.

The most notable difference between the results for the Internet penetration rate gaps and those for the computer penetration rate gaps is the effect of regional differences in regulatory quality, the importance of which changes with the region. Differences in regulatory quality explain 11.7 percentage of the gap between Europe and Central Asia, and the United States; and 18.2 to 32.0 percentage of the gap between other regions and the United States. These findings suggest that poorly implemented regulation limits Internet use.

Policy Implications

We have uncovered several interesting findings—some expected and some unexpected. First, not surprisingly, we confirm the importance of per-capita income in explaining the gap in computer and Internet use. But in certain instances, other factors rival income as the dominant factor. For example, while income differentials account for slightly more than half of the gap between the United States and Sub-Saharan African computer use, most of the remainder of the gap can be attributed to the disparity in telecommunications infrastructure. This suggests that investments in infrastructure can go far in overcoming the digital divide.

However, merely augmenting the stock of telecommunications capital is unlikely to be a very effective means of closing the gap. That is because we find that regulatory quality, which shapes the environment in which telecommunications policy is implemented, is of great importance in advancing the use of information and communication technologies. Differences in regulatory quality generally account for large portions of the gaps in technology use. For instance, 32 percent of the U.S.-Middle East and North Africa Internet gap is associated with the difference in regulatory quality. Our estimates suggest that nearly one-third of the Internet penetration rate gap would be closed if countries in the Middle East and North Africa had regulatory quality similar to that of the United States. This suggests that policy-makers' emphasis upon avoiding highly cumbersome regulatory frameworks and adequately funding the regulatory agencies is well placed.

While we confirm an important role for human capital in reducing the digital divide, the degree to which the difference in Internet use rates depends upon this variable is relatively small. For several regions, the effect of lower education is only about half as influential as differences in regulatory efficiency in explaining the gap. Low education levels may not be the key hindrances to Internet use. But because human capital and regulatory quality account for equal amounts of the gaps in computer usage, the results do not detract from the importance of human capital accumulation.

Returning to the G-8 recommendations, we see that this study's findings are in keeping with several of the objectives laid out in 2000. Fostering policy and regulatory readiness, international partnerships among public and private sectors, and increased participation in e-commerce all require a high degree of regulatory quality and trade openness, which facilitate high penetration of information and communication technologies. Improved connectivity and access, plus lower costs, require better telecommunications infrastructure. Finally, more schooling and higher literacy rates will enhance the adoption of information technologies, setting the stage for higher income growth, which is, in the end, the real objective of closing the global digital divide. ◆

Enhancing Criminal Sentencing Options in Wisconsin: The State and County Correctional Partnership

Pär Jason Engle and David L. Weimer

Incarceration of felons in state prison benefits society by reducing crime. However, the practice is expensive. Alternatives to incarceration in state facilities might offer comparable benefits to society at lower cost. One possibility is the diversion of prisoners who have committed less serious felonies to community corrections. Although unlikely to match the retributive and deterrent effects of incarceration, community corrections offers the potential for comparable levels of protection to the general public provided by correctional isolation and substantially greater opportunities for effective rehabilitation.

In Wisconsin, the number of people incarcerated has risen dramatically during the last decade. The state cannot accommodate all its prisoners in state facilities and therefore contracts with other entities for correctional services. Reducing reliance on contracting requires costly prison expansion or diversion of felons to alternative correctional programs. An important source of alternatives is community corrections programs that counties create and administer. Under current arrangements, however, counties have neither a strong financial incentive nor adequate resources to provide many innovative correctional programs.

This paper proposes a collaboration through which the state would create an environment to give counties the incentives and resources they need to find innovative ways to divert felons safely and cost-effectively from incarceration in state prisons. This program, the State and County Correctional Partnership (SCCP), would provide counties with annual block grants and impose fees for state prison time served by felons who commit less serious crimes.

Under this policy proposal, the state of Wisconsin would maintain full financial responsibility for the incarceration of those convicted of the most serious crimes, felony classes A through F. Counties would assume financial responsibility for the incarceration of those convicted of less serious crimes such as receiving stolen property or possession of controlled substances, felony classes G through I. After a five-year phase-in period, the state would give each county an annual base-level block grant equal to $18,800 times the historical number of sentence-years given to Class G through Class I felons, based on the highest number of annual sentence-years in 2001 through 2003. Each county would be required to reimburse the state $18,800 per sentence-year of Class G through Class I felons. The base-year grants would be adjusted annually in proportion to the change in the population age 18 through 24 years in each county. Any residual funds (block grant minus payments to the state) would be allocated to county projects by a majority-rule governing body consisting of the district attorney, the county executive, and the senior circuit court judge presiding in the county, or their designees. The Wisconsin Department of Corrections would lose an amount equal to the annual cost of contracted incarceration for each felon diverted by the counties below the historical base. Nonetheless, until contracted incarceration has been ended, the Department of Corrections could offset this revenue loss by eliminating a corresponding contracted incarceration.

This proposal is based on the following assumptions: First, under current policy, state correctional costs are likely to continue to grow. Second, community corrections programs may offer cost-effective alternatives to incarceration for some felons. Third, effective community corrections programs are most likely to arise from local initiatives. Fourth, local officials have neither strong incentives nor adequate resources for developing, implementing, and administering community corrections programs. Fifth, allowing local officials to share in cost-savings due to the diversion of felons from state incarceration would create an incentive to innovate. Sixth, officials in some counties would respond to the incentive by experimenting with innovative community corrections programs. Seventh, their experimentation would provide models for innovation in other counties.

The remainder of this policy proposal reviews the correctional circumstances in Wisconsin, sets out the details of the SCCP, and raises cautions about its use.

Background

Since 1990, Wisconsin has experienced dramatic increases in the number of felons serving sentences in state prisons. The increased prison population has increased state correctional costs and necessitated

contracting for beds outside of state facilities. The increased incarceration rate has undoubtedly contributed to lower crime rates in Wisconsin. An important question for state policy-makers is whether further increases in the incarceration rate represent a cost-effective use of criminal justice resources.

The number of felons incarcerated in state correctional facilities in Wisconsin has increased from 7,465 in 1990 to 22,133 in 2002, contributing to an increase in the overall incarceration rate from 149 per 100,000 in 1990 to 393 per 100,000 in 2003, according to the Bureau of Justice Statistics. Wisconsin is not alone in facing rising correctional populations and costs. In 2001, Wisconsin ranked 24th in per capita incarceration among states and 10th in expenditure per inmate. Among immediate neighbors, Wisconsin is second in its incarceration rate to Michigan (see Table 1), and second in per-inmate cost to Minnesota.

Recent years have seen an expansion of the Wisconsin state prison system to accommodate the increased number of prisoners. Nonetheless, the increasing prison population during the last decade required the state to contract with out-of-state prisons and other providers for correctional services. At the end of 1996, the Wisconsin Department of Corrections began contracting for beds out of state to alleviate overcrowding in state institutions. In 1997 the average daily population housed in facilities under contract with Department of Corrections was 536. In 2003 the average daily population in contract beds was 3,739. In September 2004, about 500 inmates were housed in facilities in other states with a similar number in contracted beds in local and federal facilities, the Wisconsin Department of Corrections and the Legislative Fiscal Bureau reported. Although the number of prisoners housed under contract has fallen substantially, and all inmates, as of late 2004, were housed in-state, further growth of the prison population under current policies during the next decade will probably result in continued reliance on contracting as a supplement to state facilities.

The increased prison population has resulted in increased costs. (See Table 2.) In 2002, Wisconsin's budget devoted nearly $900 million to adult institutions, an increase of almost $400 million since 1995. Correctional costs increased from 2.1 percent of the state budget in 1992 to 3.3 percent in 2002; state

correctional costs also increased from 19.7 percent of total criminal justice system expenditures (state and local) in 1992 to 29.9 percent in 2002. The average cost to the state of incarcerating an inmate for one year in a state facility in fiscal year 2002 was approximately $25,985, Corrections Secretary Matt Frank told the Sentencing Commission in April 2004. The cost of housing an inmate for one year in a contract facility is approximately $18,800, which can be viewed as the current marginal cost to the state of Wisconsin of an additional year of felony sentence.

Incarceration provides benefits to society. Beyond its retributive value, incarceration lowers crime rates by isolating those likely to commit crimes from the general population. Higher incarceration rates deter crimes by increasing the certainty of punishment; longer sentences deter crimes by increasing the severity of punishment. Incarceration may also reduce crime by providing rehabilitation.

The benefits of incarcerating any particular felon depends on the risks that the felon poses to society. As incarceration is costly, an important public policy question is whether cost-effective alternatives to incarceration exist for some offenders. In comprehensive reviews of evaluations of correctional and other criminal justice programs, researchers at the Washington State Institute for Public Policy identify a number of correctional alternatives to incarceration that appear to offer net reductions in public expenditures and positive net benefits to society when taking account of the costs of crimes. It is thus possible that community corrections programs could offer cost-effective alternatives to incarceration.

The State County Correctional Partnership

Probation is the most widely used alternative to incarceration in Wisconsin. Between the extremes of state prison terms and simple probation exists a range of possible sanctions involving different levels of supervision, punishment, and treatment. Because these alternatives to prison keep offenders in their communities, they are often referred to as "community corrections." Currently, however, few options for community corrections are available in Wisconsin counties. Without intermediate sanctions providing more public protection than traditional probation,

Table 1: Incarceration Rate for Wisconsin and its Neighbors, 1980-2003

The number of inmates in state facilities per 100,000 population.

	1980	1985	1990	1995	2000	2003
Illinois	94	161	234	317	368	341
Iowa	86	98	139	207	266	285
Michigan	163	196	366	429	478	491
Minnesota	49	56	72	105	129	150
Wisconsin	85	113	149	201	380	393
U.S. total	139	200	292	411	481	480

Source: Bureau of Justice Statistics

prosecutors and judges may see no responsible alternative to incarceration for many felons. It is possible that the availability of intermediate sanctions, such as house arrest, electronic surveillance, and supervised substance abuse treatment, would enable judges and prosecutors to divert more felons from state prison. It might also make available opportunities for more effective rehabilitation programs.

As the appropriateness of various forms of community corrections depends on the specific circumstances in different communities, the state of Wisconsin must rely on local communities to develop intermediate sanctions, but incentives and resources are lacking.

The proposed SCCP seeks to expand sentencing options for judges and prosecutors by fashioning a financial incentive for counties to craft programs for diverting some felons from state prison sentences to community corrections. The program would allow counties to continue current practices without financial loss, but they would be able to increase their financial resources by finding less expensive alternatives to incarceration in state institutions.

Wisconsin 2001 Act 109 introduced a system of classification that placed all felonies into nine felony classes, ranging from Class A with a maximum term of confinement of life in prison, to Class I with a maximum term of confinement of 1.5 years. Class G and below include offenses involving the least culpable mental states and lesser harms to victims. For example, Class F includes burglary, second-degree reckless injury, first-degree recklessly endangering safety, and injury by intoxicated use of vehicle with a maximum term of confinement of 7.5 years, while Class G includes third-degree sexual assault, second-degree recklessly endangering safety, felony possession of a firearm, theft, and receiving stolen property with a maximum term of confinement of five years. Analysis shows that classes G, H, and I also appear in practice to involve relatively short sentences as compared to classes A through F. The SCCP would apply only to Class G, H, and I felonies.

The basic annual block grant would allow counties to continue current practices without financial penalty. It would equal the number of years of sentence given in the county to Class G through Class I felons in some base period times $18,800, the cost of contracting for a year of custody outside of state facilities.

Table 2: Wisconsin Correctional Costs

	1992	1997	2002
State prison capacity	n/a	10,288	15,559
Number of state prison inmates	8,191	16,280	22,133
Number of contract inmates	n/a	4,335	3,456
State corrections spending (millions of dollars)	288.9	487.0	872.8
Percent of state spending	2.1	2.7	3.3
Percent of state criminal justice spending	19.7	24.5	29.9

Note: Percent of state criminal justice spending includes expenditures for law enforcement, courts, and corrections.

Source: Bureau of Justice Statistics, U.S. Census Bureau, Governments Division

Demographic changes are likely to cause changes in crime rates, and, therefore, in numbers of felony convictions. A relevant and available demographic variable is the number of people in the county between the ages of 18 and 24 years, the most criminally prone adult age group. The initial block grant would be adjusted each year to reflect the percentage change in the number of people in each county in this age group.

The annual grants would take account of the total number of sentence-years that result from convictions occurring each year. To reduce the likelihood that diversions from the Department of Corrections budget would exceed savings from reductions in contracting costs, the basic annual grants would be phased in during a five-year period. Specifically, the first-year grant for the SCCP would equal one-fifth of the basic annual grant, the second-year grant would equal two-fifths of the basic grant, and so forth. The fifth-year grant would bring the SCCP to a steady state with counties receiving full basic annual grants.

In the steady state beginning in year five of the SCCP, the annual fees that counties would pay to the Department of Corrections would equal the cost of contracting for a year of incarceration outside state facilities used in the determination of the initial annual grant, $18,800, times the number of years to which those convicted of classes G, H, and I felonies were sentenced. The number of sentence-years would be determined by summing the actual sentence lengths of those convicted.

During the five-year ramp-up to the steady state, the fees charged to counties would follow the same pattern as the grants with the first-year fee equal to one-fifth of the total sentenced years times the out-of-state incarceration cost, the second-year fee equal to two-fifths of the total sentenced years times the out-of-state incarceration cost, and so forth.

Each county would have a three-member SCCP board consisting of the district attorney, or his or her designee; the county executive, or his or her designee; and the senior circuit court judge presiding in the county, or his or her designee. The board would allocate any residual funds (block grant minus payments to the state) to county purposes by majority rule vote. Residual funds could support community sentencing or other criminal justice programs, or they could be

transferred to county general revenues. The board likely would be the focal point for innovation, possibly organizing efforts to secure external grants for innovative programs and overseeing the assessment of implemented programs. Counties that wished to operate as a single unit by pooling their grants and fees would be allowed to constitute unified SCCP boards.

Cautions

Several problems could arise during implementation of the SCCP related to risks for small counties, the temptation of Department of Corrections to change the terms of the grant and fee structure, the financial incentive for local officials to shift felons from Class G to Class F, and the expansion of community sentencing to include some defendants who now have charges dropped or receive probation.

> **The basic block grant would allow counties to continue current practices without financial penalty.**

Counties with relatively small numbers of felony convictions per year are likely to experience greater variance in the fees they pay to the state and therefore are more likely to experience years in which fees exceed their block grants. The impact of this risk could be mitigated by allowing counties with smaller volumes of felony convictions to borrow against the next year's grant. Alternatively, during the first few years of implementation a risk pool could be formed by assessing a small percentage charge on block grants. Counties with unusually high fees could seek compensation from the risk pool.

Correctional partnerships between the state and counties are not entirely new to Wisconsin. Since 1981, Wisconsin juvenile justice institutions have operated under a cost-sharing program. In 1979, in reaction to high rates of youth institutionalization, Wisconsin introduced Youth Aids to make counties financially accountable for the costs of sending youths to state facilities. Its mechanism is similar to the SCCP: Grants are awarded by formula to each county, and the state charges the county per-diem fees for institutionalized youths. The per-diem fees, however, are based on average rather than marginal costs and are not directly related to the grants. As a consequence, some counties experienced rising juvenile institutionalization fees even though their use of institutionalization remained unchanged.

Under the SCCP, the Department of Corrections would have an incentive to increase fees without making corresponding increases in the base grants. Therefore, creation of the SCCP must clearly tie the size of block grants to the fee. Any change in the fee, say to reflect changes in contracting costs, should be accompanied by a recalculation of the base grant using the new fee amount.

The SCCP would create a financial incentive for judges and prosecutors to move some sentences that would otherwise be Class G to Class F, thereby avoiding fees altogether. To guard against this, it would be important to make annual comparisons of the percentage changes in these felony classes from the base-year figures. Publication of these figures might be sufficient to prevent such shifts. However, if apparent shifts persisted, then a fee might be added for percentage increases beyond some level.

Just as the greater availability of intermediate sentences would divert some inmates from state prison to community corrections, some defendants might be drawn into community corrections who otherwise would not be prosecuted and convicted or, if convicted, given standard probation. Such net widening is not necessarily undesirable if community corrections provides a more appropriate punishment for those drawn into the net. However, it would result in greater costs for community corrections programs than would be predicted solely on the basis of diversions from state prisons.

Conclusion

The SCCP would not guarantee the expansion of cost-effective community corrections in Wisconsin. Nonetheless, it would facilitate local efforts to discover, implement, and assess such alternatives. As the state would retain responsibility for the incarceration of those convicted of the most serious felonies, the SCCP would not present local criminal justice systems with a financial incentive to avoid state prison terms for felons posing the greatest threat to the community.

The SCCP would create opportunities for locally elected officials to initiate community correctional alternatives that they believe are most appropriate for circumstances in their communities. Some counties might very well continue current practices and thereby see no significant net fiscal effects. Other counties, however, may develop diversion programs with the knowledge that local revenues would be enhanced by $18,800 per sentence-year diverted. As the $18,800 equals the current contracting cost for the state for each sentence year, the SCCP would be approximately fiscally neutral for the state until contracting is eliminated. Counties could use residual funds for any purposes, including programs to improve the courts, prosecution, police, or local corrections. Over time, cases of successful innovation would serve as models for possible replication in other counties. ◆

The Middle Way to Property Tax Reform

By Donald A. Nichols

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How can Wisconsin close its budget deficit? The immediate causes of the deficit are twofold. First, along with many other states, our tax receipts fell when the dot-com bubble burst, and we now struggle to fund our growing needs from a shrinking tax base. Second, some bad budgeting decisions in Wisconsin postponed to the 2003-05 biennium a confrontation with the deficit, which had swelled to more than $3.2 billion. We are still digging out of this deep hole.

The main drivers of the deficit are long term, however, and the sooner we confront them, the better. The costs of many state and local services, especially health care, are growing faster than state income. But taxpayers are unwilling to pay an increasing tab for these services. Something must give some day.

This deficit occurs in an era when Wisconsin's overall tax burden relative to economic growth has been roughly constant for 15 years. Personal income tax has declined as a share of personal income from about 3.8 percent in fiscal year 1992 to about 3 percent in 2004. Wisconsin sales and property taxes have not grown as a percent of personal income.

The battle over the short-term deficit could force a healthy debate about the long-term issues concerning how big government should be, how the public should fund it and how government efficiency can be improved. Wisconsin needs to decide which services should be provided publicly and privately.

An immediate issue driving the debate is irritation with the property tax. Opinions on the property tax vary widely.

The education lobby, including the teachers' organizations, points to the need to spend more on education. From the trenches they give us vivid examples of needs that current funding does not meet. Many in this group accept the property tax as a necessary evil because it is the way we pay for local education.

On the other side is an anti-tax lobby with strong participation by the business community. This group feels that government is too big and too inefficient. It proposes ways to limit the growth of government, including education, so that publicly provided services become a smaller and smaller fraction of our economy. This group, too, has vivid examples, especially of the effect of increased property taxes on retirees with fixed incomes. Indeed, many non-retirees are shocked and frustrated at large increases they have seen in their property taxes.

Is there a middle way? What compromises between these two positions should the residents of Wisconsin accept?

At a La Follette School conference on taxing and

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Faculty making such statements are often put on platforms with politicians promising relief from increasing tax burdens. Newspapers print these objective facts only when equal space is granted to those claiming the opposite.

While the anti-tax lobby is the group that now provides the debating partners for our faculty on this point, I suppose if the facts showed that government's share was indeed growing rapidly, our faculty would be paired in debate with leaders of the teachers' unions.

The La Follette School held a conference in January on taxing and spending limits that confronted a constitutional limit on spending being debated in the Legislature. The platform was reserved for experts and analysts. The conference was held two blocks from the state Capitol and attended by 200 people, many of whom spend their lives in the political arena.

There was no disagreement on the facts from the podium, though some expressed strong opinions on the desirability of spending limits, including Bill Niskanen, the libertarian chair of the Cato Institute. He argued for small government and a constitutional limit as a way to get there. We all have our own views on what is desirable, and many people expressed their views at the conference.

The facts show a huge growth in government spending on medical care, and a shrinkage of state and local spending on everything else, expressed as a share of income. A common view of the conference participants was that the problem of medical-care costs should be addressed directly, and not indirectly through a limit on "government."

The La Follette School, by stepping right into the fray, fulfilled its historic mission by sponsoring this conference, though increasing partisanship made doing so more difficult and though the weight given to the facts the experts blessed was less than the facts would have received in the past.

The struggle to provide non-partisan analysis and to do so in a way that is perceived to be non-partisan is hard and will continue to get harder.

Donald A. Nichols

spending limits, I proposed a middle way to solve the property tax dilemma. I am aware that compromise proposals keep neither extreme happy, but my proposal may have some appeal to the average taxpayer.

The proposal has three parts. The first is to freeze the rate of growth of property tax payments on all farms and residences to the rate of growth of income of an average Wisconsin resident. The big advantage is that property taxes will not drive retirees—and others—from their homes. Even the most ardent supporter of increases in education spending does not want to see this scenario.

Because some school districts and other providers of government services would be frustrated by the inability to raise additional resources through the property tax, the second feature allows districts, counties, and others to set their mill rates as they do now and to benefit from increases in assessments. Under the second provision, property tax payments that would otherwise be above the frozen limit—whether because of increases in property values or the mill rate—would be deferred until the property is sold.

The third feature of the proposal would have state government bond the deferred tax collections and remit the bonded revenue back to the local taxing authorities. In this way the local authority would receive the same revenue that it now gets when assessments or mill rates change. That is, government would collect directly from property owners the amount of the increase that is less than the freeze. Local authorities would sell to the state the amount in excess of the freeze as a deferred claim.

In turn, the state, which would own the claims to the deferred tax payments, could sell securities on Wall Street that the deferred claims guarantee. When the deferred payments come due, when the properties are sold, inherited, or converted to other use, the state would collect the payments and pay off the Wall Street bonds. Thus the net cash the state receives or spends would not change, the net cash the local authorities receive or spend would not change, and property taxpayers would have a portion of their payments automatically deferred if their taxes would otherwise increase faster than average incomes.

If written into legislation, the core of the proposal would be accompanied by a set of optional details. Each of these could be chosen in separate up or down votes without dropping the central ideas.

My preference would include making participation optional. I would replace the taxation of farmland at use value with the proposed deferral. I would have the state charge interest on deferred tax payments at the same rate as the state pays to bond the deferrals. I would exempt seniors with incomes below $25,000 from the interest charge. I would maintain existing local revenue caps. Each of these possibilities deserves individual attention, but the central ideas can be adopted regardless.

Middle-way proposals are vulnerable to attacks from both sides. This proposal has no provision to increase education spending above what would otherwise be or to protect it from the growing cost of medical care, which threatens to eat up everything else in the state budget. So the education lobby will be disappointed.

The plan does not cut the size of government from what it would otherwise be, so the anti-tax lobby will be disappointed.

But the proposal does keep people from being thrown out of their houses when property taxes rise, and it does protect a major source of revenue for local services, including education, police, and fire, which are services that taxpayers want. ◆