However, a new study comparing outcomes across counties in California finds that over the long term the results for the two methods appear to be similar.

Although the increases in employment were not as dramatic as the declines in case loads, the gains in labor force participation are still substantial. Data from studies of several different states show that approximately 55 percent of those leaving welfare were employed in any particular quarter in the year subsequent to leaving welfare. Of those who took a job, 40 percent remained employed for a year and 70 percent worked during at least one quarter in the first year off welfare. On a national level, the outcomes are equally encouraging. Data from SIPP show that of those observed for 12 months after leaving welfare, 66 percent were employed at some point and 62 percent of this group (41 percent of the total) had earnings in all four quarters of the year. A large fraction of workers not only have earnings in all four quarters, but were in effect, continuously employed, and many of these were employed full-time. Thirty-two percent of welfare-leavers worked 50 weeks or more during the year, and 40 percent of this group worked 35 or more hours in every week.

Importantly, the rates of employment increased even among those who remained on welfare. In 1999, 33 percent of welfare recipients were working, compared to just 7 percent in 1992. The development of an attachment to the labor market for those currently on welfare bodes well for future exits for these individuals. In both groups of workers, the importance of the new economy should not be understated: The longer the economic expansion continues, the more job skills former and current welfare recipients will accumulate, and the better prepared they will be to weather an economic downturn.

There is a concern that welfare recipients who get jobs are likely to lose them soon after. In the sample of SIPP leavers who were working at some point during the 12 months following exit, 48 percent did leave a job during that period. However, when examining reasons for leaving a job, the most common explanation was "left for new job" reported by 22 percent of respondents.

In addition to employment status, success after welfare can be gauged by the amount of earnings, and the potential for earnings growth. For the sample of SIPP leavers, median monthly household income plus food stamps for the year following exit was $1,401, compared to a statistically equivalent $1,468 in the two months preceding exit. For 44 percent of leavers, the total household income plus food stamp in the post-exit year was more than $50 higher than in the months before leaving, while for 49 percent it was at least $50 lower. One would not expect many of these new entrants to the labor market to have jobs that pay a very high wage, or even a wage that provides income above the poverty line. In fact, when looking only at earning and not household income, 48 percent of leavers who had any earnings at all had earnings below the poverty line in each of the 12 months following exit. When other sources of income are taken into account, however, this fraction with household income below the poverty line in every month falls to 29 percent. It is important to recognize that credits from the Earned Income Tax program (discussed in detail below) are not included in these calculations. While benefits from the EITC are not recorded in the SIPP data, the program provides a substantial subsidy to the earnings of low-income workers and would likely change incomes and poverty rates considerably.

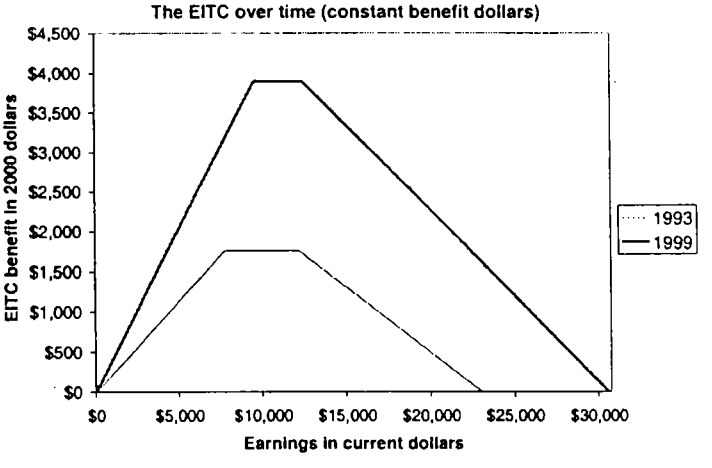
More important to assessing the potential success of the employment relationship is the extent to which earnings grow over time. Comparing outcomes over just the first 12 months after exit, 39 percent of leavers had monthly earnings in the second 6 months that were $50 or more higher than in the first 6 months. Only 28 percent had a $50 or greater reduction in earnings over the two 6 month periods. Thus, a large fraction of former welfare recipients find jobs that provide earnings growth through increases in hours or wages or both.

Making Work Pay

The transition from welfare to work is facilitated by a network of government support programs available to working families. In the past, families that left welfare often lost not only their cash assistance, but also faced other implicit taxes on their incomes through the loss of in-kind benefits, such as food stamps and Medicaid, and additional expenses incurred by working, such as the cost of child care and transportation. One study estimates that the implicit marginal tax rates—the decrease in the amount of government transfers for resulting from a one dollar increase in income--for AFDC recipients could range as high as 109 percent with the highest rates faced by those near the poverty line. In other words, earning one dollar more in the labor market would reduce benefits by $1.09 and total income by $0.09. PRWORA has attempted to reduce these "taxes" by expanding health insurance coverage to include many working families, increasing child care tax credits, and increasing the rewards from work through minimum wage policies and increases in the Earned Income Tax Credit (EITC). These programs also benefit low income working families who were not on welfare. By reaching out to this often neglected

group and providing financial assistance, help with affordable child care and health insurance, the administration has worked to ensure that no group is left behind.

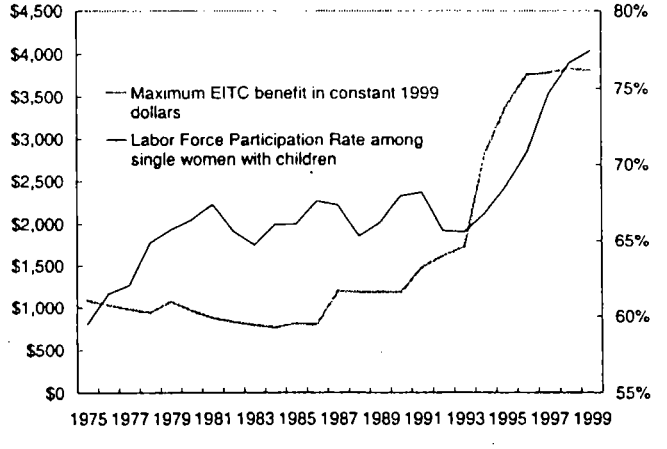
EITC: The EITC is one of the most successful programs targeted at low wage workers and is currently the largest cash transfer program in the country. Operating through the income tax system, the EITC provides a wage subsidy to low income workers with the amount of the subsidy depending on earned income and number of children. By increasing the wage rate the EITC creates stronger incentives for individuals to participate in the labor force. For a families with two or more children, wages are subsidized by 40 cents for every dollar of earned income until earned income reaches $9,540 (in 1999) for a maximum credit of $3,816. This tax credit is refundable so that even families who pay little or no tax can benefit fully from the program. Rather than eliminating the credit when earnings surpass this level, the credit remains at $9,540 for a period and then gradually reduced, phasing out completely at earned income of $30,565. This gradual reduction reduces the disincentive to work past the level at which the credit peaks.



The EITC has been expanded greatly since 1993 with increases in both benefits and in the scope of coverage. The 1993 expansions increased benefits for all eligible families, and particularly for those with two or more children. The expansion also allowed workers without

children to claim a tax credit. As a result of these expansions, benefits paid through the EITC program increased from $18 billion in 1993 to nearly $32 billion in 1999, and the number of families receiving assistance from the program increased by one-third, from 15 million to nearly 20 million.

The wage subsidy has been effective in attracting more workers to the labor market. One study in particular estimated that the EITC alone was responsible for 34 percent of the increase in annual employment of single mothers over the period 1992 to 1996.

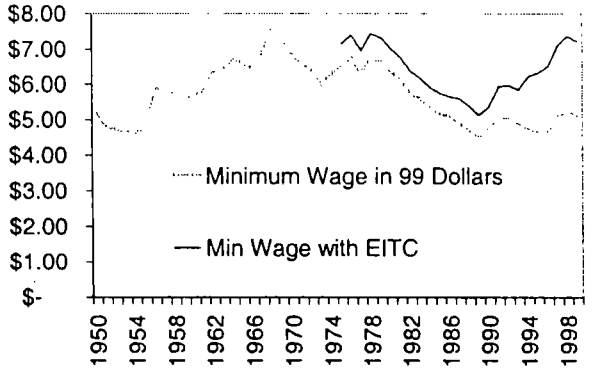


The EITC program also plays an important role in reducing the implicit marginal tax rate faced by those exiting welfare.

In addition to increasing the probability of employment, the EITC has done much to improve the well being of those who take advantage of the program. While the discussion above pointed out the difficulty former welfare recipients have in securing jobs that pay above poverty level wages, when the EITC is taken into account the earnings of many of these new workers increase substantially. In 1999, the EITC lifted 4.1 million individuals, including 2.3 million children, out of poverty. The program has also been effective in targeting benefits to the most

needy. Estimates are that over 60 percent of EITC benefits accrue to families who have pre-EITC incomes below the poverty line.

Minimum wage: Operating in tandem with the EITC is the minimum wage. Although the EITC provides a wage subsidy, the minimum wage laws ensure that the subsidy is based on a fair wage. The real value of the minimum wage fell in the early 1990s hitting just 61 percent of its 1968 value in 1995. Subsequent Administration-backed efforts led to increases in the minimum wage in 1996 and 1997 [edit later: and additional increase of one dollar passed just this fall.] With this most recent increase, the minimum wage reaches 68 percent [edit later] of its 1968 level.



However, when combined with a possible 40 percent EITC subsidy, the true minimum wage for low income workers is $7.21, a figure nearly as high as the peak minimum wage rates in the 1960s.

Child care: For many parents, one of the most difficult aspects of employment is affording adequate child care. For low income families and new entrants to the labor market, the costs associated with child care sometimes make work impossible. In recognizing the cost of child care as barrier to work, PRWORA sought to increase the affordability of child care for low

income families and to provide for more families. In doing so it combined various child care assistance programs already in existence to create the Child Care and Development Fund (CCDF) and substantially increased the funding. The CCDF provides states with block grants to subsidize approved child care arrangements. In 1999 states had access to a total of over $3 billion to use to improve and quality and affordability of child care. Unfortunately, despite the generous funding, the majority of states have waiting lists for benefits and many who qualify for the subsidies do not receive benefits. Estimates are that only 10 percent of eligible children are receiving benefits. According to one study, only 30 percent of families who left welfare and are now working as also receiving assistance with child care. [edit later: Proposal for $1 billion more in funding] However, despite the shortages, the number of children benefiting is large. In fiscal year 1998, an average of 1.5 million children received CCDF assistance in each month.

Although common sense and economic theory suggest that these subsidies will increase the probability that parents participate in the labor force, little evidence of the labor force participation effects of the program is available. This difficulty exits because most experiments of the effect of child care subsidies have also included other support programs such as health insurance and assistance obtaining employment and the effects of the different programs cannot be disentangled. An important issue along these lines is the extent that the subsidies allow parents who could not otherwise obtain care afford to do so. It is possible that by subsidizing child care the CCDF program crowds-out, or replaces, unpaid care. A mother who may have used a grandparent as a caregiver might choose a paid provider when she is offered a subsidy. If this is the case than the change in labor market participation as a result of the program will be small.

It is also unclear how the CCDF program affects the quality of care. If paid care replaces unpaid care, are children better off? Alternatively with a reduction in price, do parents demand higher quality care? The theoretical predictions are unclear. However, it is worth noting that the CCDF subsidies can be used only to purchase care from approved providers. In this sense it might improve the overall quality of care if parents substitute away from unlicensed providers.

Food stamp program: The food stamp program supplements family incomes to ensure that low income families receive adequate nutrition. Benefits are available to families with incomes up to 130 percent of the poverty line. The vast majority of benefits, 90 percent in 1999, go to families with children or elderly individuals. In 1999, 32 percent of benefits went to working families. Over the past few years, enrollment in the food stamp program has fallen dramatically from a high of 27.5 million participants in 1994 to 18.2 million in 1999. This decline is notable even among families with children. Only 51 percent of children in families with incomes below the poverty line received food stamps in 1999. Even among the very poorest---children in families with incomes below 50 percent of the poverty line---only 58 percent received food stamps in 1999, a decrease of 47 percent since 1993.

This decline would be good news if families were becoming self-sufficient and did not need government assistance. However, there is a concern that many eligible families are not receiving benefits that they need. In particular, it is hard to imagine that those with incomes below 50 percent of the poverty line have sufficient resources that food stamps would not be a valued supplement. The decline in food stamps may connected to the decline in welfare

participation. When families leave the welfare rolls they may believe that they are no longer eligible for food stamps, or alternatively they may not be informed of their eligibility by state welfare agencies. Newly working families may also find it difficult to retain benefits if they must miss work to be re-certified or if they have difficulty filling out the forms required to report changes in income. While a good deal of anecdotal evidence exists about the importance of various explanations for the decline in participation, we know of no study that has quantitatively assessed the validity or importance of these explanations. However, based on the sample of leavers in the SIPP data there does appear to be a sudden drop in the use of food stamps. Sixty-eight percent of those who exited welfare were receiving food stamp benefits while on the TANF rolls, compared to just 44 percent in the month immediately after exit. However, perhaps surprisingly, a similar decline is observed for those who leave welfare in the 1993 SIPP panel, well before the implementation of welfare reform. This comparison suggests that the drop in food stamp participation is not due to the institutional changes enacted by PROWRA.

Despite the drop in food stamp participation, there has been a sharp decline in food insecurity and hunger among Americans. Results from a recent survey found that the fraction of households in which someone went hungry fell to its lowest level ever recorded, 2.8 percent of the population--24 percent below the level in 1995 when the survey began. There is, however, a cautionary note: food insecurity (defined as being uncertain of having adequate food) for those with incomes between 50 and 130 percent of the poverty line actually rose. Furthermore, approximately one-third of those households with incomes below 130 percent of the poverty line—the income limit for food stamp eligibility--experienced food insecurity at some point, and over 10 percent experienced hunger. The figures are even larger for households with children.

Health Insurance Expansions: In the past, welfare participants who were successful in obtaining a job and exiting welfare typically lost their Medicaid coverage. This loss is likely to be costly and provides a strong incentive to remain on welfare. One of the important features of PRWORA was the expansion of Medicaid coverage and the creation of the State Children's Health Insurance Program (SCHIP), both of which provide health insurance coverage for children in low income working families. Because of the importance of these programs, they are discussed later in the chapter.

Reaching out to Underserved Communities

Providing opportunity and independence for American families, often requires more than a strong national economy and responsible welfare policy. In some areas poverty is so entrenched and the local economy so weak that programs specifically targeting these regions are needed. Some of the most intractable poverty in the country has been found in central cities. In 1967 when statistics for central cities were first recorded, the poverty rate for these areas was 15.0 percent compared to a nationwide rate of 14.2 percent. By this measure then, central cities were nearly as well off as the rest of the country. In contrast, poverty in non-metropolitan areas in 1967 was over 20 percent. Since that time, there has been a substantial shift in the incidence of poverty, with a worsening of conditions in the central cities, and an improvement in non-metropolitan areas. By 1993, the percent of central city residents living in poverty had reached 21.5 percent, its highest level ever, while the poverty rate in non-metropolitan areas declined somewhat to 17.2 percent.

Several factors are offered as explanations for the plight of central cities. The first is that central cities have social and demographic characteristics that make their populations particularly susceptible to poverty: The population of central cities is more likely to be illiterate, have low job skills, live in female headed households, and have little education, than the population of non-central cities. Secondly, residents of central cities often lack the social connections to help them find the jobs necessary to escape from poverty. These factors are associated with high levels of poverty regardless of area of residence and current policies to make work pay, discourage out of wedlock child-bearing, and improve schools in poor neighborhoods, are addressing these issues.

What appears to distinguish the situation in central cities from that in other areas are the limited job opportunities. Recent research has shown that the majority of job creation is taking place in suburbs rather than in inner cities. One study compared the number of low-skilled jobs in central cities and surrounding suburbs, with the number of low-schooled workers in each area, for four different cities. It found that the fraction of new job openings in the central cities and in the suburbs matched well with the fraction of people living in each area, but that once skill differences were taken into account, there was a spatial mismatch: the vast majority of new low-skilled jobs were concentrated in the suburbs, while the majority of low-skilled workers were in the central cities. Estimates from one study based on a small sample of cities found nearly 3 times as many new jobs per low-skilled worker in suburban areas than in central cities. For African Americans the situation is especially severe. Only 4 percent of low-skilled jobs were African American areas in central cities while 67 percent of low-skilled African Americans lived

in these areas as did 42 percent of impoverished female-headed households. Furthermore, a recent HUD study found that between 1992 and 1997 not only was job growth was slower in the cities than in the suburbs, but that the job mix in cities is shifting toward high-tech jobs that are unavailable to low-skilled workers.

The difficulty central city residents face in finding employment is further heightened by transportation problems. Low-income workers, and welfare recipients in particular are unlikely to own cars. They must therefore rely on public transportation to commute to jobs. The suburbs are not well served by public transportation. The same study found that nearly half of low-skilled jobs in the suburbs were not accessible by public transportation. Furthermore, a reverse-commute, if possible at all, is extremely time consuming. While some cities and employers have chosen to provide transportation from the inner city to jobs in the suburbs, a more permanent solution is likely to be found in rebuilding the economies of central cities.

The administration has taken on this challenge and has developed a package of programs designed to improve the economic opportunities in distressed communities. The three main components of this package are the New Markets Initiative, Empowerment Zones (EZs) and Enterprise Communities (ECs), and the Community Development Financial Institutions Fund (CDFI fund). These programs provide an alternative means to helping American families. While TANF, food stamps, and other parts of the social safety net provide direct and often immediate assistance to needy families, these community redevelopment programs work towards longer term solutions to poverty and unemployment by assisting in the rebirth of distressed communities. The benefits from such programs, like the benefits from some employment based

programs, take time to be realized. Despite the long term nature of expected gains, preliminary evidence from some of the earliest programs finds is just starting to be assessed. This evidence points to **[HUD can you help us get the early results on this?]**

Community Redevelopment Programs

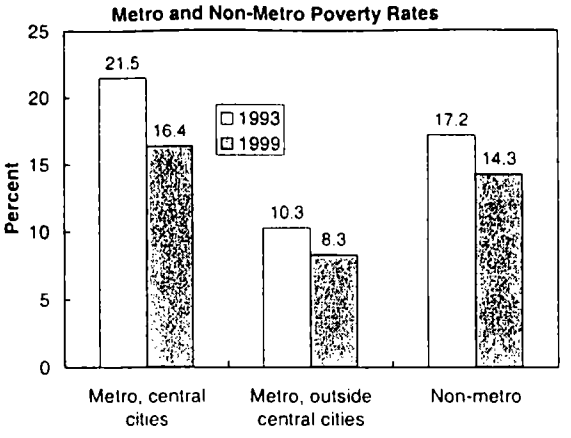
The administration's community development policies aim to assist distressed communities by encouraging investments from the private sector. These programs provide incentives such as tax credits and improving access to credit markets. At the foundation of this policy are empowerment zones and enterprise communities, typically referred to as EZs and ECs. In 1994, when these programs began, 105 cities were designated as EZs or ECs. The EZ and EC programs give communities substantial flexibility in developing new initiatives under the belief that problems can best be assessed and solved on a local level. The federal government helps by providing tax benefits and technical assistance to businesses expanding or locating new facilities in the target zones. It also provides grants to the communities themselves to support activities such as job training programs, day care centers, and community technology centers. Finally EZs and ECs can apply for waivers from federal regulations to help address specific economic problems.

The Community Development Financial Institutions Fund (CDFI) is similarly designed to encourage the development of new private markets in distressed communities. The CDFI does so by expanding the amount of capital available in these areas. CDFIs include community development banks, credit unions, venture capital funds and business loan funds. These

institutions provide credit and other banking serves to a diverse set of clients including home buyers and small business.

Much of the New Markets Initiative is still before Congress [edit later]. However, an important component of the Initiative is the New Markets Tax Credit. This program offers a 25 percent tax credit designed to stimulate investments in distressed communities. It is anticipated that a wide variety of businesses will benefit from the program including retail stores, shopping centers, and small technology firms.

Through the combination of policies addressing both the long term and short term needs of the urban population, the quality of life for those living in central cities has improved dramatically. The unemployment rate in central cities has fallen from 8.2 percent in 1993 (July) to 4.8 percent in 1999 (July). This increase in employment has brought with it a reduction in poverty and an increase in median income. The poverty rate in central cities declined from 21.5 percent in 1993 to 16.4 percent in 1999, with the largest drop, a decline of 2.1 percentage points, coming in the past year. In fact, 80 percent of the total reduction in poverty from 1998 to 1999 was due to the reduction in central cities.



Median household income in central cities has also increased, rising 5 percent from 1998 to 1999 compared to a 2.1 percent increase for median incomes in metropolitan areas as a whole. For African Americans the gains were particularly striking. Median income for African American households in central cities increased by 13.9 percent in the one year period. Along with these economic gains has come a decline in the number of individuals on welfare. Case loads in central cities have declined by 40.6 percent from 1994 to 1999.

Despite these dramatic improvements, there is more to do. Poverty rates and unemployment are higher in central cities than elsewhere. In 1999 the national poverty rate was 11.8 percent compared to 16.4 percent in central cities. Furthermore, although dramatic, the 40.6 percent reduction in welfare was substantially smaller than the 51.5 percent decline nationwide. And there continues to be a mismatch between the skills of the urban work force and the demands of urban jobs. The administration's New Markets Initiative, EC/EZs and the CDFI fund provide hope for a fundamental change in the plight of inner cities, but these initiatives must be backed with other programs that focus on the future. As our new economy demands a more highly trained work force we must invest in our schools, where sufficient jobs cannot be brought

to the inner cities we must provide transportation systems to move workers to jobs, and finally, we must continue to support policies that make work pay.

Education in the New Economy

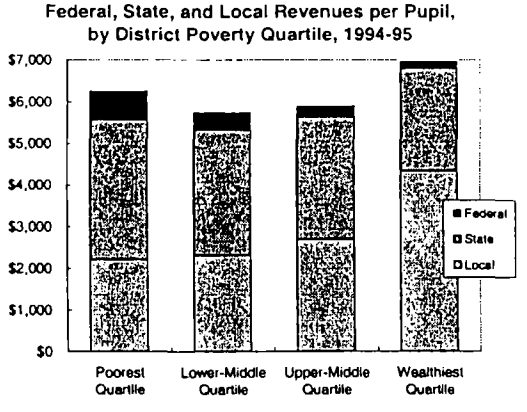
The rapidly expanding economy that has permitted these improvements in the well being of Americans is based in large part on information and technology growth. Continued growth therefore depends critically on a well-trained work force. The 2000 Economic Report focused on the demand for educated workers and the increasing economic returns to education. This year we examine America's public schools, noting recent changes in the ways in we educate our children and how we might best improve the quality of schooling we offer our children.

A Role for Federal Education Policy

In the United States, responsibility for elementary and secondary education has traditionally been left to the states and to local school districts. As a result, our public education system is extremely decentralized, and the federal role is limited. Given the structure, the federal government can best help local school districts by strategically targeting funds to where they will be most effective and by supporting and publicizing promising initiatives developed at the local level. In particular, the federal government has sought to improve access to education for the nation's poorest children and to help states improve the overall quality of their public schools. While economic incentives ought to induce parents to invest optimally in the education of their

children, many poor families and communities lack the economic resources to do so. In these cases federal funds can play an important role.

Excluding school-based nutrition programs, the Federal government provides just over 6 percent of the funding for K-12 education. However, these funds are primarily targeted to new programs and to schools and school districts serving poorer students and can therefore have a larger impact than their magnitudes would suggest. While federal spending in the poorest schools does reduce the inequalities across districts it does not fully compensate for funding disparities related to local property tax bases and state funding for schools.



The largest single federal program for kindergarten through 12th grade (K-12) education is Title I, which allocates funds based on child poverty rates. The targeting of Title I funding towards schools serving poorer children increased significant with the passage of the 1994 Elementary and Secondary Education Act. In the 1997-98 academic year, 96 percent of schools in the highest-poverty quartile received federal Title I funds, up from 79 percent in 1993-94. This quartile of schools contained 49 percent of the nation's poor children in 1997-98, and received 43 percent of all federal funds for K-12 education. These redistributional aspects of

Title I funding are typically significantly larger than any redistributional efforts on the state level.

There are many components to a quality education. While certainly parents, family, and communities play a crucial role, the discussion here is limited to features of the educational system more directly under the control of federal, state and local governments. We highlight in particular those aspects which current research suggests are most important and which are the subject of recently policy initiates. The analysis discusses the effect of class size on learning, teacher quality, the infrastructure of schools and equipment, and curriculum changes.

Reducing class size

Over the past decade, mounting evidence has shown that reducing class size can improve academic achievement, especially for students from disadvantaged backgrounds. Teachers in smaller classes can spend more time on individual instruction and review, and spend less time on student discipline and routine administrative tasks. Teachers of small classes may know their students better, interact with them more frequently and individually, and provide more frequent and in-depth feedback.

The effects of smaller class sizes appear to be significant and long lasting. A recent study of an experiment on class size in Tennessee found that students who were enrolled in smaller classes in kindergarten through grade 3 did better than students who were not in smaller classes

even after returning to larger-sized classrooms in later grades. These students also did better on their SAT and ACT exams, and were more likely to take such college-entrance exams than students who never had the benefit of a small class. The results were especially strong for minority students—being in a small class in elementary school narrowed the difference in black/white probability of taking a college entrance exam in high school by 54 percent.

While the majority of research has concluded that students do better in smaller classes, reducing class sizes is expensive. Fully funding reductions in class size nationwide to 18 students per class would cost more than 5 billion dollars per year. Yet given the relationship between test scores and future earnings, the economic benefits of reducing class sizes will exceed these costs even if they lead to improvements of only 0.1 of a standard deviation in standardized test scores. Alternatively this $5 billion could be spent on other improvements such as raising teacher salaries, renovating schools, lengthening the school year or upgrading textbooks and materials.

Paying for the needed reductions in class size is hampered by the current distribution of students and resources. A disproportionate share of the cost of class size reductions would be borne by schools serving poor students, since these schools currently have larger classes than more wealthy schools. Furthermore, there is little room at the state level for a reallocation of funds to assist poor schools. The majority of the inequality across school districts is attributable to differences in resources at the state level. Such cross-state differences can be best addressed through federal programs. In 1998, the administration proposed a seven-year Class Size Reduction Initiative to reduce class sizes nationwide to 18 students per class. In its first year, the program spent a total of $1.2 billion. These funds enabled school districts to hire 29,000 new

teachers, reducing class sizes from an average of 23 students per class to an average of 18 students per class for 1.7 million children. In its second year, the program spent $1.3 billion.

The need for well-qualified teachers

Reducing class sizes requires an increase in the number of teachers. This increase in demand is in addition to an already predicted surge in the number of teachers needed over the next decade. Between July of 2000 and July of 2008, the population aged 5-17 will increase by more than a million, while about three-quarters of a million teachers are expected to retire. Other teachers will leave the field of teaching for other occupations. Ignoring the effects of class size, the United States will need approximately 2 million new teachers over the next 8 years. Currently most occupations are seeing much sharper increases in starting salaries than the teaching profession, leading to an increase in the gap in starting salaries for new teachers those for other occupations also requiring a college degree. This trend will make it difficult to find qualified applicants for the millions of new positions becoming available.

One would expect the learning experience of a child to depend substantially on the quality of the classroom teacher. With sudden increases in the demand for teachers due to reductions in class size, it is difficult to maintain a consistently high level of quality in all classrooms. In 1996 California began a massive class-size reduction program, spending $1.5 billion per year with the goal of reducing class sizes statewide from an average of 28 students per class to a maximum of 20. By the 1998-99 school year, over 92 percent of California's students were in classes of 20 students or fewer. However, in grades K-3, where the class size reduction

program was targeted, the percentage of teachers who were fully credentialed fell from 98 percent in the 1995-96 school year to 87 percent in the 1998-99 school year. This fall in the credentials of teachers was even greater in schools with the largest proportions of low-income children. Success of nationwide reductions in class size thus depend on the ability to attract and retain qualified teachers.

Box 5 Teacher Compensation

Changes in teacher compensation are a possible way to attract more highly motivated and skilled teachers to the profession, improving academic performance. The level of teacher pay is often cited as a problem in recruiting and retaining highly qualified teachers. In theory, higher pay will increase the pool of applicants for teaching positions, especially among the highly skilled and motivated, resulting in better teachers. However, simply raising teacher pay will also encourage lower skilled teachers already employed to stay in teaching positions.

Researchers have also examined proposals for altering the structure of teacher pay, such as paying teachers based on effort and skill, as measured by student performance. Performance based pay would mean a significant departure from the traditional teacher pay systems, which base teacher pay on uniform schedules, providing higher pay for higher education, experience, and extra responsibilities. Under traditional pay systems, pay scales are based on objective criteria, and teachers with identical education levels, experience, and workloads receive the same pay. While this does eliminate potential disparities based on administrator's subjective criteria,

it does not reward exceptional teachers—even with the same education and experience levels, different teachers are likely to have different results. In theory, providing compensation tied to the performance of the teachers or their students will spur teachers to higher performance, and attract people who feel that they are likely to benefit from such a system to the teaching profession. Performance awards would also provide clearer guidance to teachers who have been operating with unclear or multiple competing goals. Developing and implementing a school-based incentive pay system may complement the standards movement—since educational objectives are being more clearly defined and progress towards them is being more clearly assessed, linking pay performance is much more feasible than it used to be.

Yet, such performance-based pay systems for teachers must be very carefully designed. Student learning in a school involves the cooperative effort of many people. Incentives must be designed to create cooperative, not competitive, environments between teachers within a school. Educational achievement is also based on factors over which teachers have little or no control—such as family circumstances and previous education. Thus, incentive systems must reward teachers for the progress of students during the period they teach them, rather than absolute achievement levels. Incentives may also too narrowly focus attention on a few easily measurable indicators of educational achievement, when what is really desired is broader progress in many areas, some very difficult to measure. Yet another issue is whether incentive pay is effective at all, as it may undermine intrinsic motivations that effectively motivate teachers now.

The Need for New Schools

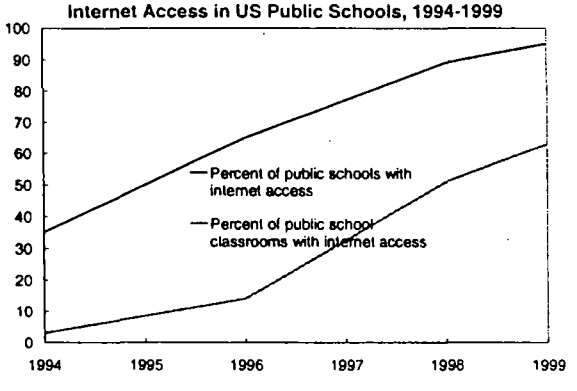
All students need safe, healthy, and modern places to learn. Communities across the country are struggling to address urgent safety and facility needs. The average public school was built or most recently renovated 40 years ago, and schools with more minority or poor students are more likely to be housed in older buildings. Many such older buildings require extensive upgrades of their electrical systems in order to install computers, upgrades made even more expensive by the widespread presence of asbestos in their walls.

Increasing enrollments will put further pressure on aging educational facilities as will reductions in class size. The Department of Education estimates that $127 billion is needed to bring American's schools in good overall condition. Already, 39 percent of public schools in the U.S. contain temporary additions, one-fifth of which are in less than adequate condition. Schools with more minority students and schools with more poor students—the very schools whose students would benefit most from reduced class sizes—are more likely than other public schools to have temporary buildings. Their temporary buildings are also most likely to be in less than adequate condition. To help address these problems, the current federal budget includes $25 billion in school modernization bonds and $6.5 billion in loans and grants for urgent school renovation to modernize 6,000 schools and make emergency repairs to another 25,000 over the next five years.

New Educational Technology and Internet Access

As workplaces require more computer literacy from their workers, schools must prepare their students to enter the labor force with increasing familiarity with these technologies. Internet access can also be a tremendous resource in classrooms, giving students new incentives for learning and communicating, and connecting them to the resources of libraries, museums, and educational materials from around the world.

Between 1994 and 1999, tremendous strides were made in connecting public schools to the internet. The number of public schools with some connection to the internet nearly tripled between 1994 and 1999—by 1999, 95 percent of public schools had some connection to the internet and 98 percent of public secondary schools were connected. The increases in internet connectivity were even sharper for classroom connections: increasing from 3 percent of public school classrooms in 1994 to 63 percent in 1999.



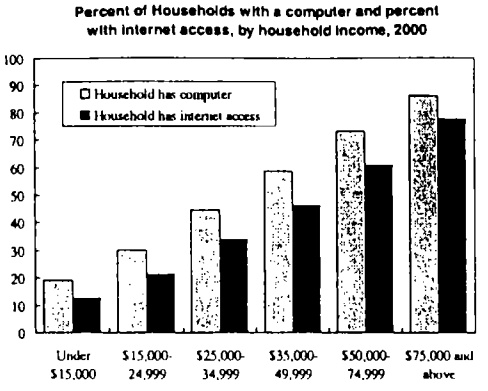
For computers to improve the quality of instruction teachers must know how to use the machines and how to integrate their usage into classroom instruction. Approximately one-half of the public school teachers with computers or internet access in their schools report using these resources for classroom instruction. Teachers who have received more professional development

in using computers and the internet, younger teachers, and teachers in schools with fewer poor students were more likely to report using computers and the internet. Only one-third of teachers with access to computers and the internet said that they felt well or very well prepared to use computers and the internet and only one-fifth felt very well prepared to integrate educational technology into the classroom. Clearly, more investment in teacher preparation is needed.

The Federal government has helped local school districts make the transition to the digital age. Through its e-rate program, the Federal government has spent $5.3 billion as of September 2000 to connect school and library computers to each other and to the internet. These funds have been targeted to poor students: Schools with 75 percent or more of their students receiving free school lunch receive approximately ten times as much funding per student from the program as schools with the smallest percentage of poor students. Most of the funds have gone to establishing within-building connections between computers.

Schools are reducing the Digital Divide

Since 1993 computer use in America has grown at an enormous rate, revolutionizing the way Americans communicate, work and do business and computer knowledge and access is becoming increasingly important for success in today's society. Currently more than one-half of all US households have computers, and more than two-fifths have internet access in their own homes. However, internet access is not spread evenly among Americans. Its use varies greatly with income and education--people in households earning more than $75,000 per year are almost 4 times as likely to use the internet as people in households earning less than $15,000 per year.

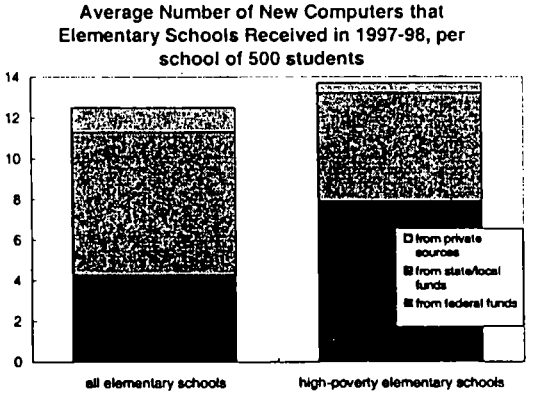


Adults with college degrees are nearly 6 times as likely to use the internet as adults who have not completed high school. There are also large differences by race. African Americans and Hispanics are substantially less likely than white and Asian Americans to use the internet. While some of this difference is due to differences in income and education, a recent study finds that approximately one-half of the difference in access is unexplained by these factors. As the level of technological literacy required by employers rises, there is an increased risk that individuals from disadvantaged groups who already face obstacles in the workplace will fall even further behind.

There is, however, good news along this front. African American, Hispanic, and lower-income Americans are connecting to the internet at faster rates than whites, Asians, or wealthier Americans. The most notable changes are occurring among school aged children, suggesting that the widespread availability of computers in the classroom is playing a role. Across all income and demographic groups, children aged 9-17 are more likely to use the internet than are older Americans. Over the last few years internet usage has grown faster among African American and Hispanic children than among white children, and faster among children in households earning less than $35,000 per year than among children from higher income households. Between 1998 and 2000, the gap in internet usage between black and white children decreased by 9 percent,

although the gap in internet usage between Hispanic and white children grew by 9 percent. The gap between internet usage among children from households earning less than $35,000 per year and children from more wealthy households was unchanged.

Other federal programs also helped schools purchase new educational technology. In 1997-98, the most recent year for which such data is available, the federal government spent $688 million on increased access to technology in schools. These funds were used primarily for the purchase of computers and for professional development in using new technology. During the 1997-98 school year, federal funds paid for one quarter of new computers in schools. Federal funds were especially important in the acquisition of technology in high poverty schools, accounting for nearly 60 percent of funds for new computers in high-poverty elementary schools.



Institutional Change

Large investments in education are taking place—in hiring new teachers, in educational technology, in connecting schools nationwide to the internet, and in professional development for teachers. Yet the changes in American public schools which have happened over the past

decade go far beyond increasing these investments. Dramatic changes are also taking place in the way that school resources are used. Organizational change has become a permanent part of the educational environment. The nature of change has moved from top-down mandates to site-based innovation and system restructuring including new ideas like schools as learning communities, the importance of professional development for teachers, and the central role of meaningful parental involvement. In the last decade, four major system level strategies for delivering education have emerged: standards-based accountability, whole-school reform, market strategies, and shared decision-making. Each represents an attempt to address differing interests from a wide range of stake-holders including children, parents, teachers, school administrators, and legislators.

The dominant state-level strategy today is standards-driven accountability. It is hoped that establishing clear performance outcomes and systematically testing student progress, will stimulate teachers and students stimulated to focus their efforts in the right direction. Despite the popular appeal of standards and the widespread efforts to implement it, many observers are reserving judgment on its ability to generate widespread change. State after state has implemented standards for what all students need to learn in school. These standards have been followed by an increase in standards-based assessment, giving policymakers, parents, and students themselves more information for decision making.

Forty-nine states now have adopted statewide standards for what students should be studying in English, mathematics, science, and history and the social studies—thirty of the state implemented these standards after 1994. Forty-eight states have adopted state tests to assess

student performance against these standards in reading and math—seventeen also assess student performance against science and social studies standards. Thirty-six publish some form of report card for each school, measuring school performance against a number of indicators, including assessment tests.

By implementing challenging tests with consequences that are enforced, schools can raise the expectations—and the motivation levels—of students, teachers, and parents. For many years, opinion surveys have shown that Americans believe our nation's schools are doing poorly—but that their own local schools are doing far better than the average. Experts warn that parents may not realize when their own children are falling behind. Standards-based assessments can give parents, teachers and other local decision-makers with objective information about how well students are learning—not only in comparison to other students in the same school, but to students at other schools as well. Furthermore, evidence suggests those countries and regions with standards and external assessments of student achievement have historically done better on comparison tests of student achievement.

The Federal Government has played an important role in spurring the standards movement by providing funds for developing voluntary national standards granting more than $1 billion to help state and local education agencies in every state implement school reforms through the 1994 Goals 2000 Act. In addition, the Elementary and Secondary Education Act (ESEA) tied state standards implementation to continued receipt of Title 1 funds for poor schools. The legislation required that standards used in schools receiving Title I funds are the same standards used in schools not receiving Title I. This meant that states had to implement

standards for all schools, or risk losing millions of dollars in Title I funds. The Federal government has also increased its assessment of American students' progress, better enabling us to evaluate these state-level reforms. In recent years, the Department of Education has expanded the National Assessment of Educational Progress (NAEP) to track student performance in each state. From the NAEP, we now have a tremendously valuable set of baseline indicators for 1990-1996 against which we will be able to measure student progress this decade and in future. This will help us evaluate student performance across states with widely differing state tests.

Along with implementing standards, schools and teachers have also made progress in developing and refining curricula. Over the past decade, educational researchers have formed a consensus on how best to teach reading to young children, ending the unproductive "reading wars". This consensus was summarized in the National Reading Panel's recent "Teaching Children to Read," and in the National Research Council's "Preventing Reading Difficulties in Young Children." These reports stress the importance of explicit instruction in the building blocks of written language (phonics), within the context of a broader educational program that interests children in reading for a variety of purposes and gives them ample opportunities to practice their reading skills.

Giving Schools the freedom to innovate

A persistent thread in the last decade of educational change has been the call for parental choice. Critics have argued that public schools have little incentive to improve, because they have a near-monopoly on schooling. Allowing parents to choose among alternatives would

create a marketplace for education in which competition for per-pupil funds would force schools to improve.

Many states have answered these critics by allowing parents, teachers, or other interested parties to establish independent schools chartered by state or local education agencies. These charters give schools autonomy over their operations, and exempt them from certain state and local regulations (although not from standards-based assessment). Beginning with Minnesota in 1991, the number of states allowing such charter schools swelled to 36 states and the District of Columbia by the end of 1999. **[Could the Dept of Ed or anyone help use get more current numbers on schools and enrollments?]** By the beginning of the 1999-2000 school year, there were 1,605 charter schools in operation nationwide, and the number of such schools was growing by more than 40 percent per year.

Although charter schools represented less than 1 percent of all US public schools in 1999-2000, their rapid growth has made them the recipients of a great deal of attention, especially in areas where a significant percentage of students now attend these schools. Charter schools tend to be about a third the size of nearby public schools. Most enroll students of similar race and ethnic backgrounds as the students in their surrounding districts, although school districts with charter schools tend to have larger minority student populations than the national average. Most reported that they became charter schools to "realize an alternative vision of schooling." Nearly 90 percent reported that their students' achievement and their finances were monitored by their chartering agencies.

Charter schools have great potential as laboratories of educational innovation, allowing individual schools to experiment with a variety of different educational methods and student populations. It is hoped that successful charter school innovations will eventually spread back to the broader public education community.

Innovation and Access in Health Care

Another important aspect of any individual's well being is his health status. The quality medical care available in the United States is the best in the world, and recent medical innovations have further enhanced the quality of care. In addition to the benefits of a longer and healthier life accruing to individuals, improved health can also feed back to help the economy by reducing the number of sick days for employees and improving productivity. In this section we will illustrate a few of the more recent medical innovations, and discuss issues relating to access to health care.

Innovation

The past decade has seen dramatic innovations in medical care and treatment of individual conditions, and on a broader scale, in the relationship between patients and the medical system as a whole. A number of biomedical, pharmaceutical, and information technology advances have led to significant changes in the methods of treating people and in the health outcomes of individuals with those conditions. Health statistics reflect the impact of these advances. The treatment of heart attacks provides a powerful example of the role of innovation in

improving health outcomes. Clinical trials of alternative acute heart attack management techniques have led to major changes in the treatment of heart attacks, and these changes directly accounted for approximately 55% of the decline in heart attack mortality between 1975 and 1995.

Not only are people living longer, but they are doing so with a lower incidence of disease and a higher quality of life. For example the rate of functional impairment has decreased. For the elderly there has been a significant decline is functional disability over the last xxx period and 24-41% of this decline has been attributable to innovations in medical care.

The health care industry has spawned dramatic technical changes in the last few decades. The number of new drugs that have been approved has increased rapidly: from 1995 to 1998, an average of 37.5 new drugs were approved each year, an increase of nearly 50 percent over the average rate of approval between 1989 and 1994, and a 65 percent increase over the period from 1985 to 1989. New biomedical knowledge has led to treatments for conditions that medicine could not previously address, to less invasive procedures, and to more accurate diagnostic techniques.

A few examples illustrate the benefits of these changes: More than four million Americans have Alzheimer's disease, the most common form of dementia. For centuries, people had to accept the progressive loss of intellectual and social abilities as an inevitable process for those afflicted. However, in 1976 a specific neurotransmitter was found to be associated with the incidence of Alzheimer's disease. Since that time there has made substantial progress in the

treatment of Alzheimer's disease with many of the gains coming in the last 5 years. New drugs such as donepezil, introduced in 1996, are now widely available, and act to temporarily enhance cognitive functioning and delay disease progression. This development has brought new hope to many Alzheimer's elderly and their families. The value of such treatment is great; and potential savings generated from reduced formal or informal care-giving services, and delayed or avoided institutionalization can be as large as $63,000 annually per patient. A potential cure for Alzheimer's disease may be within reach as scientists identify the genes associated with Alzheimer's disease.

Cataract surgery provides another example. In the 1960s, cataract surgery required a large incision and, therefore, postoperative hospitalization for as long as a week. The invention of phacoemulsification, a process that breaks the cataract into tiny pieces that can be extracted by a small incision, has now made cataract treatment a ten-minute outpatient procedure. In addition, the change from eyeglasses, to contact lens, to inserted optic lenses (IOL) on operated eyes has greatly enhanced patients' post-operative vision. This advancement resulted in not only a better treatment, but the simplification of the process means that cataract surgery is performed by more physicians and is available to people who would previously have gone untreated. The increase in the number of cataract surgeries is substantial; among residents of one county studied in Minnesota, the rate of cataract extraction for individuals over 65 increased by four times from 1980 to 1994.

Not only were there important innovations in the treatment of diseases, but there were also significant improvements in the ability to diagnose disorders. The recent development of

Functional Magnetic Resonance Imaging (FMRI) provides an example of such a diagnostic advance. FMRI is an extension of MRI, which was developed in the late 1970s and widely diffused in the U.S during the 1990s. MRI, like CT-scans and X-rays, enables the observation of internal anatomical detail. However, FMRI improves significantly on these older diagnostic tools in that it does not use potentially harmful radiation and provides better resolution and greater contrast between normal and abnormal tissues. FMRI enables observation of entirely new internal processes. For example, physicians can obtain information about the functioning of the central nervous system, such as subtle increases of blood flow associated with activation of parts of the brain. The newer generation of MRI can detect chemical concentrations, and metabolic and water interaction; all of which can aid brain mapping and biochemical change mapping caused by different diseases. However, MRI, and FMRI are expensive improvements: MRI costs XX times as much as CT.

These examples provide specific illustrations of the value of recent medical innovations. A number of other critical advances have been made. For example, doctors can now transfer organs including hearts, lungs, livers and kidneys, none of which were possible a few decades ago, and the use of immonosuppresants has greatly increased the success of grafts. Modern telecommunication devices and speech recognition programs have been applied to compensate people with visual, hearing, and physical impairments, improving the quality of life of many people.

Pharmaceutical Innovation and Costs

While medical advances open the doors for new and improved treatments, they also contribute significantly to the increases in health care costs. Pharmaceutical innovations illustrate this phenomenon. The rate of pharmaceutical innovations has been accelerating: the number of new drugs introduced per year increased from 23 in 1990 to 53 in 1996, and an estimated 100 new drugs in 1998. These new drugs improve existing drug therapies or provide entirely new options for treating conditions. A few examples of the benefits of drug advances are new immunosuppressive agents that increase graft survival, and cholesterol reducing drugs that reduce the risk of heart attack. However, the accelerating innovation rates have been accompanied by an accelerating cost of drugs: spending on prescription drugs increased at an annual rate of 12 percent between 1993 and 1998, far faster than the 5 percent increase in overall health expenditures.

This growth in spending is due to a number of factors. One of these is that these new drugs are replacing cheaper older drugs. New drugs are priced two to four times higher than old drugs within the same disease subcategory. This higher cost of new drugs accounts for about 40 percent of the increase in drug costs. A second factor is that new drugs have very high utilization rates, and thus even without a price increase, they push medical spending higher. This accounts for about 40 percent of increased drug spending. Higher prices for existing drugs accounts for about 20 percent of the increase in the drug spending.

Because drugs provide improved health benefits while at the same time escalating costs, an important issue is how to evaluate whether those extra costs are better spent on drugs or other alternatives. Medical researchers attempt to estimate the cost effectiveness of a drug by measuring the benefits in terms of quality adjusted life years (QALY), which capture the gains from both longer life and quality of life. By comparing the cost per QALY of alternative treatments, the treatments can be ranked by their cost effectiveness. One study reviewed 228 cost-utility analyses and found that median cost per QALY was $11,000. While there is no standard threshold for cost effectiveness, $50,000 to $100,000 has often been used as a benchmark in the U.S.

However, cost-effectiveness does not mean cost saving. It appears that pharmaceutical innovations have concentrated on new and more expensive remedies, whether or not they are cost-effective. This continues to put pressure on health care costs, and thus on health insurance, pushing access to the benefits of pharmaceuticals out of the reach of some. Thus, the health care system must develop a greater understanding of how to create incentives that will spur cost-saving innovations, making improved health more affordable for all.

The challenge of improving health insurance coverage

As noted, the health care system in the United States is capable of providing the highest quality health care in the world. However, that health care can also be very expensive, particularly treatments for non-routine health care. Even routine health care costs are beyond the means of some people. Thus, there is a strong need for health insurance to allow people to benefit from this high quality health care.

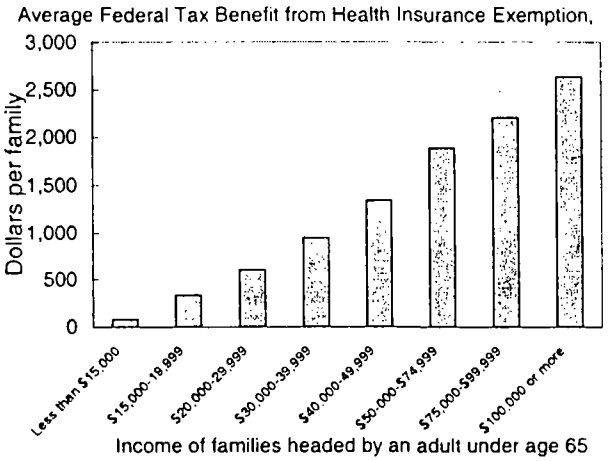
The health insurance system and its coverage

The American health insurance system relies primarily on employer-provided health insurance--about 63 percent of all Americans (74 percent of all insured people) are covered by an employer-based program. One reason for the dominance of employer-based group insurance is that the Federal tax code favors employer-based insurance. Insurance premiums paid by firms on behalf of employees are not included in the employees' taxable income, and employees' shares of health insurance premiums can be made with pre-tax dollars in firms with flexible spending plans. Because equivalent subsidies do not exist for employees who obtain insurance outside of work, this system encourages employer-sponsored plans.

There are several valuable aspects of this system. One benefit is that it encourages substantive risk pooling among a firm's employees, making insurance affordable and available for employees of all risk categories. In addition, firms can hire benefits administrators, who can evaluate different health insurance policies and act on behalf of the employees to ensure quality plans are offered to workers and that quality is periodically monitored. Firms can also take advantage of economies of scale to lower the insurance company's administrative costs, and thereby obtain lower prices.

Unfortunately, this system also possesses some inherent weaknesses. One problem is that the tax-preferred treatment of health insurance provides little benefit to low-income people who are most in need of assistance in making health insurance affordable; households with incomes

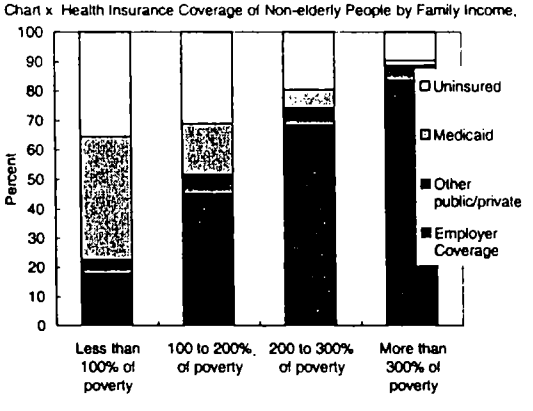
low enough to have no tax liability receive no tax subsidy (See chart). In addition, those who do not obtain health insurance through their employer must find an alternative health insurance source. This includes not only the unemployed and the self-employed, but also people whose employers either cannot afford, or choose not to offer health insurance, and those who, even though offered health insurance, are unable to enroll because their share of the premium is more than they can afford.



People without employer-provided health insurance and who do not qualify for publicly-funded programs must enter the individual insurance market if they want coverage. This market can present problems that limit affordable access. Some insurers may chose not to cover people with existing health problems, or sell policies that omit those problems from coverage. Insurers may also charge different premiums based on an individual's perceived risk; for example, older people may have to pay significantly higher premiums because they are more likely to experience health problems. In some cases, these premiums can be unaffordable. In addition, the cost of administering individual policies leads to higher administrative costs.

Publicly provided health insurance programs—Medicare, Medicaid, and SCHIP—provide an important source of coverage for many people. Created in 1965, Medicare and

Medicaid provide health insurance for elderly and low-income Americans. Over 36 million individuals received medical insurance through Medicare in 1998. Medicaid offers federal assistance to States that provide medical care to low-income Americans. Historically, eligibility for Medicaid was linked to eligibility for cash welfare. Beginning in the late 1980s, Medicaid has shifted toward a more general health insurance program that includes low-income working people. The 1996 Personal Responsibility and Work Opportunity Reconciliation Act, particularly, allowed Medicaid coverage to low-income families. Medicaid served over 41 million people in 1998. In 1997, the federal government created the State Children's Health Insurance Program (SCHIP) to target the growing number of uninsured children in families that have too much income to be eligible for Medicaid but too little to afford private insurance. SCHIP provides states with funding to provide health insurance through Medicaid, a non-Medicaid program, or a combination of both.



This combination of employer-provided, individually purchased and publicly provided health insurance results in 42.6 million people without coverage. Not surprisingly, health insurance coverage is significantly related to income and employment characteristics. In families with income below the poverty line, 43 percent of adults did not have health insurance. In contrast, in families with income greater than 300 percent of poverty, only 9 percent of adults are uninsured. Fifty-six percent of uninsured non-elderly people are in families with incomes below

200 percent of poverty. The source of coverage also varies with income. More than 80 percent of families with incomes over 300 percent of poverty receive health care coverage through an employer. For families below the poverty line, meanwhile, Medicaid is the source of coverage for about X% of all families. Employees of small businesses (less than 100 employees) are also less likely to have insurance: one-fourth of small business employees are uninsured, compared to one-eighth of the employees in firms with 100 or more workers. This may be because small businesses are unable to take advantage of risk pooling as effectively as larger businesses. Part-time employees are much less likely to have coverage—32 percent of households with only part-time workers are covered. This decline is due in part to firms' restricting eligibility to exclude many part-time and temporary workers from health insurance coverage.

There are also significant differences in health insurance coverage across different racial and ethnic groups. Approximately 12 percent of non-Hispanic whites, 22 percent of blacks, 35 percent of Hispanics, and 21 percent of Asians and Pacific Islanders were uninsured in 1998.

Issues in health insurance reform

The need for health insurance reform is apparent from the large number of uninsured people. However, any proposal for reforming the health insurance system must address some specific challenges, including the possibilities of crowding out current health insurance, exacerbating adverse selection and difficulties encouraging participation by the uninsured.

"Crowding out" occurs when a policy that is designed to extend coverage to those currently uninsured cause some people who currently have insurance to switch to some other form of insurance. Another form of crowding out is when a policy causes an employer to stop offering coverage (or reduce its contribution) and thus forcing its employees to take advantage of the new government insurance or tax subsidy. When crowding out occurs, government dollars go not just to newly insured; some fraction of the money goes to those who had coverage and are now switching to a newly subsidized plan. If the new subsidy provides a much higher benefit than the value of the tax exclusion, then crowding out can be severe and the cost to the government of each net newly insured person can be pushed up substantially. Moreover, some employees may lose coverage and be unable to find replacement coverage, resulting in a smaller net increase in coverage, or possibly even a net decrease.

Studies of the Medicaid child eligibility expansions of the late 1980s and first half of the 1990s found that about 10 to 20 percent of the increase in Medicaid coverage was due to a reduction in private insurance coverage. Most of these studies examined Medicaid expansions that did not contain anti-crowd-out provisions. Because Medicaid covers mostly low-income people who are less likely to have private insurance, crowding out might be expected to be modest. The amount of crowding out will likely increase as eligibility for subsidies is extended up the income scale.

A second issue that any policy must consider is the risk of adverse selection. Adverse selection occurs when relatively low-risk individuals believe they do not benefit from the risk pooling provided by insurance, and therefore leave the risk pool. As these healthier people with

lower health care costs leave the original pool, the average cost per person remaining in the pool will increase. When the costs and therefore the premiums for insurance begin to climb, still more people will elect not to purchase health insurance and there can be a spiral of rising premiums and declining enrollments. This could lead to prohibitively high premiums for those still desiring to purchase health-care insurance. Adverse selection can affect both the group and the non-group markets. The existing tax subsidy for employment-based group health insurance encourages healthy workers to remain in the group pool, because the subsidy for individually purchased insurance is smaller. If an alternative policy makes individual insurance more attractive, healthy people may decline employer-based coverage for individual coverage priced to suit them, leading to adverse selection in the group pool. In response to restrictions on individual rating, healthy people may also leave the individual market and not carry any health insurance, leading to adverse selection in the individual market. Even if young, healthy individuals find low-premium policies that reflect their lower risk rather than choosing to drop insurance altogether, higher risk people might still face prohibitively high premiums because the market becomes segmented into different risk pools.

Studies of insurance choices by employees offered multiple health insurance plans have shown that adverse selection occurs in the health insurance market. One study of government employees found that premiums for plans with more generous benefit levels increased much faster than premiums for plans with lower benefit levels, and found that this change was due to the worsening health status of the people selecting the generous benefit plan. A study of a second example where employees were offered a choice of several plans observed that healthy

employees were less likely to choose the more generous benefit plan, and that the premium for the most generous plan became so expensive that the employer dropped it from the options.

A final consideration in designing any policy to extend health insurance is encouraging participation by the targeted group. For example, a policy with a modest co-payment may be implemented to prevent over-utilization by the insured. However, for individuals at low-income levels, even such modest costs may dramatically decrease enrollment and utilization. This may especially affect families without health-insurance problems, who could risk remaining uninsured to pay for more pressing needs such as food and housing. In addition, a complex application process designed to determine eligibility may have the unintended side effect of dramatically reducing coverage for otherwise qualified individuals. A subsidy that is received only after expenses have been paid may also deter individuals who do not have the funds to pay the insurance premiums up front.

Meeting the challenge of covering more people

The Administration has taken steps to extend coverage to more people. Particularly noteworthy successes have been the expanded eligibility for Medicaid, and the creation of the SCHIP. In addition, the Health Insurance Portability and Accountability Act of 1996 limits exclusions for pre-existing conditions in employer health insurance plans and for people converting to individual insurance. The Administration's Family Care proposal would enable more low and moderate income families to be covered by extending publicly provided insurance to the parents of children covered by SCHIP.

Although much has been done to ensure access to health care for millions of individuals, a number of challenges lie ahead. Prescription drugs have become a significant health care expenditure for many, particularly for the elderly. Helping individuals afford needed prescription medications is a priority. We must also contend with the growing elderly population and the forecasted increase in the need for long-term care. And finally, we must continue to work towards providing access to the health care system for the millions of Americans who remain uninsured.

Building Livable Communities

As the new economy presents greater options and opportunities for Americans, it also poses critical challenges for ensuring the sustained livability of our developing communities. Throughout much of the 20th century the population has shifted from central cities to suburbs and this trend has accelerated in the last decade. From 1990 to 1999 the suburban population grew by nearly 19 percent, compared to population growth of only 6 percent for central cities. This rate of increase is striking, relative to the rates of growth during the 1980s: 19 percent in the cities and only 6 percent in the suburbs. However, the new economy has witnessed a change in the pattern of job location as well. Inner cities are no longer the source of the majority of job growth. Rather, new jobs and new industries are springing up on the fringes of cities, often in "technology parks" or "research corridors." In 1997 57 percent of metropolitan-area jobs were located in suburbs, up from 55 percent in 1992.

These new "edge cities" have the potential to offer the best of both worlds to American families: the amenities and quality of life people seek from the suburbs, and the availability of jobs formerly associated with the central city. However, there are also drawbacks to this trend, and a satisfactory outcome requires that communities invest now in developing plans to channel this growth along avenues that ensure that the attractive aspects of the area are not spoiled by rapid growth. With this new growth comes the need to balance economic considerations with their social and environmental consequences.

Economic Forces Driving Suburbanization

Economists have noted the positive relationship between the density of economic activity and a region's productivity. In the past, many of the gains from agglomeration were due to access to natural resources and means of transportation. In contrast, the agglomeration economies of today are often based on a clustering of firms in the same industry that gain from the sharing of ideas, consumers, and specialized pools of skilled workers. Familiar examples include the mutual funds cluster in Boston, the oil and gas cluster in Houston, and the computer and related electronics cluster in Silicon Valley. **[Add evidence.]** Often freer from traditional ties to specific locations, new economy firms are able to choose from a wider array of potential business sites.

The outcome of their choices has led to a further distinction from past periods of industrialization. With current development occurring on the outskirts of cities, rather than in the central cities themselves, development is consuming land at a rate twice that of population

growth. An average of 2.3 million acres of land is being consumed annually, and a significant share of this is residential development on lots of one acre or more in fringe suburbs or smaller cities. Such growth is commonly known as "urban sprawl."

Sprawl, defined as dispersed development beyond metro centers, often stretches along established highways and throughout rural areas. Identified by low-density residential and commercial settlements, sprawl often requires reliance on automobiles for transportation, including long-distance commutes. Powers over land-use and transportation are often fragmented among different local and regional governments, resulting in little coordinated influence on land use decisions. Often sprawling communities are divided by great fiscal disparities and distinctly zoned land uses.

Several economic explanations exist for this form of suburbanization. First, for many of these young, growing firms, urban areas may exhibit diseconomies that offset any benefits associated with the central city. The building stock in most central cities is old, and it may be costly to upgrade existing facilities to current technological standards. Rents in revitalized or redeveloped urban areas may be too expensive for new firms to afford to locate there. Similarly, existing building codes may make new construction prohibitively expensive, and in many cases it may be more cost effective to "start from scratch" in a new area. **[Does HUD or anyone else have good data on this?]** The drawbacks of urbanization may also accrue to potential employees. Firms in the new edge cities may be more attractive to workers seeking to live near work and yet avoid the congestion and pollution of an urban area. Finally, by locating near similar firms, firms can generate new externalities and benefit from shared resources. In the

most well-known examples, firms in Silicon Valley, California; Cambridge, Massachusetts; and the Research Triangle of North Carolina benefit from access to pools of specialized high-tech labor.

Challenges of new growth.

The rapid economic growth of technology centers in edge cities and suburban areas provides benefits to local communities in terms of jobs and tax revenues. For example, between 1995 and 1999 sales tax revenues in the city of San Jose increased by 40 percent. However, if left unchecked this growth can also bring significant costs. Many suburban communities are becoming increasingly congested and in danger of losing the very attributes that made them attractive places to live and work. Increasing population strains existing public resources like schools and parks. Affordable housing is moving farther away from available jobs, increasing average commuting distances. The resulting traffic problems, worsened by limited public transportation, make commuting difficult and time-consuming and increase the demand for new road construction. Car ownership and the availability of public transportation can help; however, the problems of spatial mismatch persist.

The effects of rapid growth affect the environmental quality of these regions, as evidenced in their water quality, air quality, and land use patterns. Increases in paved surfaces, including roads, buildings, and parking lots, can contribute to a deterioration of water quality as well as to an overall loss of greenspace. This loss of greenspace leads to a less effective natural drainage, poorer water quality, and a dramatic increase in the potential for flooding in some

areas. For example, residents along California's Russian River have witnessed their fourth major flood in three consecutive years. Hydrologists attribute such events in part to urbanization's effects on stream flow: downstream runoff into streams and rivers increases as impervious surfaces from development increase. **[EPA or others, can you share further specifics or statistics, perhaps on a national level?]** Increased traffic not only affects commuting and quality of life, but also ambient air quality, as emissions can lead to elevated levels of ozone and particulate matter. While national air quality trends have improved over the last 10 years, as of September 1999, 121 metropolitan areas still did not meet the national standards for air pollutants. This pollution in turn affects the health of residents, especially those in sensitive segments of the population. For example, incidence of pediatric asthma, aggravated by particulate matter, SO_2, and ozone, has increased 55 percent between 1982 and 1996.

Economic Dimensions and Solutions

One of the difficulties with ensuring appropriate development is that the costs and benefits of the development are typically borne by different entities; decisions benefiting private individuals may have adverse public effects, but these social costs are unlikely to be weighed by private decision makers. For example, individuals may prefer homes on large private lots, distant from both city centers and major highways. However, these homes require new roads, more driving, and the installation of public utilities. If a large number of individuals chose to live in such homes, the negative externalities that the decision generates – increased traffic, air pollution, and impervious surfaces – can outweigh the benefits each individual receives. The

results of such decisions are evident in many areas of the country, and are particularly vivid in Atlanta Georgia, despite planning efforts to remedy them.

Atlanta, Georgia: Challenges to Smart Growth

Ranked by some as the nation's most sprawl-threatened large city, Atlanta continues to expand at a phenomenal pace. From 1980 to 1998 Atlanta's population grew almost 68 percent, with almost all of this growth occurring beyond the city limits. According to some studies, the Atlanta metropolitan area loses 500 acres of greenspace, forest, and farmland each week. This means that greenspace is disappearing to development faster than in any metropolitan area in history, and the city is suffering its consequences: water quality of the Chattahoochee River and Lake Allatoona is deteriorating, and air quality is in violation of clean air standards. Traffic congestion costs from lost time and wasted fuel are estimated at an overwhelming $1.5 billion a year. With an average work commute by car of 37 minutes (which is estimated to stretch to 45 minutes in 20 years, given continued growth), Atlanta residents may enjoy new economy benefits, but are clearly suffering the resulting costs of seemingly boundless sprawl. Motorists in Atlanta lead the nation in miles driven per person per day, totaling over 100 million miles daily.

The Atlanta Regional Commission is attempting to limit and coordinate this expansive growth. These governments are opposing a perimeter highway proposal for the reason that it threatens urban investment and encourages further sprawl. The ARC, supported by the state government, is trying hard to provide and encourage alternatives to single-motorist car transportation.

However, the momentum of sprawl continues and Atlanta faces a serious challenge to channel future growth toward building sustainable, attractive communities.

Economists would argue that the true cost of building a new home should include the costs of the associated externalities. However, quantifying these social and environmental burdens is considerably more difficult than merely identifying the private costs of development. There are, however, positive steps that can be taken in this direction. For instance, many studies have found that the additional tax revenue received from new development does not necessarily cover the installation of roads and utilities and the provision of public services to new residents. If new development were required to bear the full cost of services, including infrastructure, the resulting pattern of development would be less likely to have the characteristics of urban sprawl. Many governments have begun to assess impact fees on new construction to correct these subsidies.

Communities are beginning to use other kinds of economic incentives to achieve outcomes more consistent with smart growth. For example, some communities, such as South Bend, Washington, have imposed fees on impervious surface area to encourage development that has a less detrimental effect on water quality and flooding potential. Other communities are using toll roads to improve traffic patterns. San Diego charges motorists on I-15 higher prices during congested times than for driving during off-peak hours. The use of electronic transponder technology to identify motorists and collect tolls makes this system possible without the significant slowdowns caused by toll collection plazas. Other communities use transferable

development rights to provide incentives for maintaining land in agriculture and other uses that maintain open space and provide ecological benefits.

The Clinton-Gore Administration's $9.3 billion Building Livable Communities program is encouraging "smart growth." It has set forth several principles to help guide policy efforts on a local level and to encourage greater planning and coordination over larger regions to resolve existing negative externalities. The Livable Communities initiative seeks to sustain prosperity and expand economic opportunity, to enhance the quality of life, and to build a stronger sense of community. Dedicating funds for regional smart growth efforts including Better America Bonds for state, local, and tribal governments, the initiative aims to preserve green spaces, ease traffic congestion, restore a sense of community, promote collaboration among neighboring municipalities through regional governance, and enhance economic competitiveness. As demonstrated by what Vice President Gore termed "a wave of local innovation," initiatives on the state and local levels are beginning to have real impacts on communities. Examples of such progress include the State of Maryland and the City of Chattanooga, Tennessee.

Examples of Smart Growth

Many governments are making significant efforts to encourage smart growth. For example, Maryland has established the following goals in its smart growth program: to preserve its most valuable remaining natural resources, to support existing communities and neighborhoods by targeting state resources to development in areas where the infrastructure is

already in place, and to save taxpayer dollars by avoiding the unnecessary cost of building the infrastructure required to support sprawl. The program also ensures that the State will regularly evaluate the program's effectiveness. Earning federal grant money, reprioritizing within the state budget, and designing financial incentives for businesses, local governments, and homeowners, the State has been able to leverage funds necessary to emerge as a leader in the smart growth community, while preserving local decision-making authority.

Similarly, the smart growth success of Chattanooga, Tennessee, affirms the conviction that Americans can enjoy both economic prosperity and a high quality of life. Chattanooga was once home to heavily polluting iron foundries, textile mills, and chemical plants. However, through thoughtful economic development efforts, Chattanooga has become a model for other cities seeking environmentally sound urban renewal. The city now prides itself as a "laboratory" for sustainable development projects involving rezoning, reclamation, revitalization, and redevelopment. Illustrating how older cities can thrive in the new economy, Chattanooga boasts a 22-mile "Riverwalk" with picnic areas, a sculpture garden, waterfront housing developments, an electric-bus public transit system, footbridges, and an arts district.

Many of the areas of new and rapid growth are characterized by the combination of an educated workforce that places emphasis on the quality of life, and favorable economic conditions. Therefore, they have both the constituency to demand change, and the resources necessary to implement it. There is evidence that business and community leaders are already recognizing the costs and impacts of sprawl and acting to mitigate the negative effects. In areas

such as the Washington, DC Beltway, Boston, San Francisco, and Seattle, leaders are acting to improve land use and transportation decisions and enhance environmental quality. The success of these endeavors will depend on the ability of these communities to make hard choices and find creative solutions to the challenges of urban sprawl.