Will Tightness in Tenth District Labor Markets Result in Economic Slowdown?

By Ricardo C. Gazel and Chad R. Wilkerson

abor markets in the Tenth District are tighter now than at any time in recent memory. The steady fall of unemployment rates in recent years has led many analysts to wonder if future economic growth in the region could be restricted by labor shortages.¹ The district's labor market is, in fact, even tighter than suggested by its unemployment rate of less than 4 percent in 1998 due to the presence of two other significant, but often overlooked, factors: high labor force participation rates and slowing domestic migration flows.²

The labor force participation rate, meaning roughly the percentage of the working-age population that is actively taking part in the labor force, has been increasing rapidly in the district this decade and is now well above the national rate. This means the district is likely to have a more difficult time drawing new workers from its own population in the future. Likewise, the district has suffered in recent years from smaller net migration flows from the rest of the country after several years of strong gains following the 1990-91 recession. Thus, at a time when district labor markets need to be drawing more workers from other parts of the country, the flow of new workers is actually drying up.

This article explores whether the growth of jobs in the district is likely to be hampered by slower growth in the labor supply in the presence of tight labor markets. The article finds that the district's extremely low unemployment rate, combined with a record level of labor force participation and diminishing migration inflows, does indeed reflect an economy that is likely to suffer from slow labor supply growth in the near future.

The first section of the article explains the basic elements of the labor supply and shows how tight the district's labor market really is. The second section discusses the primary factors that will influence the size of the district labor supply in the years to come. Finally, since labor market tightness is by no means uniform across the district, the third section provides an outlook for labor markets in each of the seven district states.

Ricardo C. Gazel is a senior economist at the Federal Reserve Bank of Kansas City. Chad R. Wilkerson is a research associate at the bank. This article can be accessed on the bank's Website at www.kc.frb.org.



I. THE DISTRICT LABOR SUPPLY AND HOW IT HAS CHANGED

To investigate how the district labor supply is likely to change in the future, it is important first to see how it has changed in the recent past. This section explains the relationship between the district's labor supply, labor force participation rate, and unemployment rate and shows how these elements of the labor market have behaved in recent years.

What does tightness in the labor market mean?

Determining the size of the labor supply first requires finding out how much of the total population of an area is actually available to work (Figure 1). Therefore, the initial step is to subtract from the total population those groups that are obviously not available to work. These groups include people under 16 years old, men and women in the military, inmates of penal and mental facilities, and those in homes for the aged and other such institutions. The resulting group of people is the economic population.³ In both the district and the nation, the economic population consists of about 75 percent of the total population. But this figure merely represents the upper bound of the potential labor supply, since not everyone included in this group wants to work. For example, people who are in the economic population but not in the labor force include full-time students, homemakers, retirees, and people who are willing to work but have been discouraged by unsuccessful job searches and are no longer looking for a job. Subtracting these groups from the economic population results in the labor supply available to firms, or the labor force.

To determine the unemployment rate, the labor force is then divided into employed workers and unemployed workers currently looking for a job. The unemployment rate for a given area is simply the percentage of its labor force that is unemployed.



Chart 1 U.S. AND DISTRICT POPULATION GROWTH RATES BY COMPONENTS

Tightness in the labor market arises when the pool of workers available for new jobs shrinks. A drop in the unemployment rate often signals tightening in the labor market. But the labor market can tighten even without a drop in the unemployment rate because the size of the labor force is constantly changing. The size of the labor force can change as a result of changes in two important variables: population and labor force participation rates.

Effects of population growth on labor supply

Perhaps the most important influence on the size of the labor supply is growth in the economic population. At the national level, the economic population grows over time with growth in the total population, which depends on the natural increase in population (births minus deaths), as well as foreign immigration. At the state and district levels, however, population growth also includes a third component: domestic migration (that is, people moving from one state to another). From the last population census until 1997, the district experienced slower natural population growth than the national average. Additionally, the district attracted fewer foreign immigrants than the rest of the country. However, migration data reveal that positive domestic net migration into the Tenth District more than compensated for these weaknesses, especially in the years following the 1990-91 recession (Chart 1).⁴

Effects of the labor force participation rate on labor supply

The other key variable affecting the size of a region's labor supply is its labor force participation rate. The labor force participation rate is the



Chart 2 LABOR FORCE PARTICIPATION RATES, U.S. AND DISTRICT *1989-97*

percentage of the economic population taking part in the labor force (Figure 1). In the 1990s more than 10 percent of the growth in the national labor supply has been attributable to growth in the participation rate. At the district level, the share of labor force growth due to growth in participation rates has been even greater, at more than 20 percent. In 1989, the participation rate in both the United States and the district was just under 67 percent. By 1997, however, the national participation rate had risen only moderately, while the rate in the district had jumped to nearly 70 percent (Chart 2). Thus, at a time when the district's unemployment rate was falling faster than the national rate, its labor force participation rate was also rising at a faster clip, further tightening the labor market (Chart 3).

To put the importance of the labor force participation rate into perspective, it may be helpful to see how different the unemployment rates in the district and the nation would have been in 1997 if each area had had the other's participation rate but the same number of jobs. If the labor force participation rate in the United States had been the district's 69.6 percent instead of the actual 67.1 percent, the national unemployment rate last year would have been 8.4 percent instead of 4.7 percent. Conversely, had the district experienced the nation's lower participation rate last year, its unemployment rate would not have been 4.0 percent, but rather a miniscule 0.4 percent.

II. PROSPECTS FOR THE DISTRICT

As seen in the previous section, the district labor market is even tighter than commonly recognized. This section discusses what is likely to happen with the two factors affecting labor supply



Chart 3 UNEMPLOYMENT RATES, U.S. AND DISTRICT 1989-97

growth in the district—population growth and growth in labor force participation—in the future. It also examines whether the labor supply in the district can continue to keep pace with employment growth.

The district's slow population growth

As explained earlier, population growth in the district depends on natural population growth (births minus deaths), foreign immigration, and domestic migration. Natural population growth and foreign immigration have historically been slower in the district than in the nation as a whole, and this trend is unlikely to change in the near future (Chart 1). Domestic migration, on the other hand, is apt to have a smaller impact on population growth than it has had in the recent past. A look at the recent evolution of domestic migration flows shows why.

After suffering sizable population losses in the 1980s due to people moving to other parts of the country, district states witnessed a turnaround in the early 1990s. The primary reason appears to be the district's quick recovery from the 1990-91 recession relative to the rest of the country. A slow recovery by California, in particular, resulted in substantial migration from that state to some district states. In fact, California changed from a net recipient of district population in the 1980s to the largest source of net gains in migration flows into the district in the 1990s, accounting for over 70 percent of the positive net migrants in 1992-93. As economic conditions improved in California and the difference between district and national employment growth rates narrowed, the district's net gain of migrants fell from 71,000 in 1992-93 to less than 24,000 in 1995-96 (Chart 4).

Chart 4 TENTH DISTRICT NET MIGRATION BY STATE OF ORIGIN OR DESTINATION



In addition to improved job opportunities in the rest of the country, domestic migration to the district will probably also fall as costs of living here rise. Today's higher living costs are largely a result of the significant migration inflows themselves, especially in the major metropolitan areas. These inflows have pushed up prices for some nontradable goods such as housing.⁵ Additionally, fast population growth has often been associated with unwanted conditions such as traffic congestion, air pollution, higher crime rates, and a declining quality of public goods in the short run—all of which deter inmigration.

In summary, recent demographic and economic trends in both the district and the nation suggest that labor supply growth in the Tenth District will get little help from growth in the economic population in the near future. Improved job opportunities in the rest of the country and a rising cost of living in the district are likely to act together to reduce the number of potential workers moving into the district. As a result, increases in the labor supply will have to depend more than ever on increases in labor force participation rates.

The district's high labor force participation rate

Although labor force participation rates have historically shown an upward trend in both the country and the district, fast employment growth in recent years has resulted in higher participation rates than simple historical growth would forecast.⁶ This section looks at why the district



Chart 5 U.S. AND DISTRICT EMPLOYMENT GROWTH 1989-97

participation rate is so high and discusses the prospects for labor force growth in the short run.

Differences in the demographic makeup of the district compared to the nation have likely led to higher participation rates in the district. The district has historically had a higher concentration of whites and males as a share of total population than the country as a whole.⁷ As a group, white males generally have the highest labor force participation rate of all groups. Further, the district has experienced higher participation rates than the rest of the country across all groups (males, females, whites, and nonwhites).

Perhaps even more important, though, has been the faster growth in participation rates across all groups that the district has experienced this decade. As mentioned earlier, the district benefited from greater employment opportunities relative to the country as a whole following the district's quick recovery from the 1990-91 recession (Chart 5). This fast rebound likely induced more people to enter the district labor force as job search costs declined, discouraged workers returned to the labor force, and employers offered more benefits such as flexible work schedules.

In the long run, district participation rates are likely to maintain their historical upward trend. However, it is unlikely that the high growth rates of recent years can be sustained. The data suggest that participation rates in the short run respond closely to variations in employment growth but generally return to the long-run trend. Thus, the virtually flat district participation rate over the last two years should come as no surprise, given the strong growth achieved before 1996 (Chart 2). In short, it seems safe to assume that the contribution of the participation rate toward labor force growth is unlikely to grow much larger in the near future.

Labor market tightness in the future?

The analysis in this section suggests that labor markets in the Tenth District are likely to become even tighter in the near future. Labor force participation rates have reached record levels, although they are likely to level off, and net domestic migration into the district is slowing. In addition, the unemployment rate in the district has already gone well below the level typically associated with full employment. Thus, unless the demand for labor in the district begins to decline as a result of a slowdown in the overall U.S. economy, the district's supply of workers will not be sufficient to maintain economic growth at levels such as those enjoyed in recent years, at least not without additional pressure on labor costs.

A substantial slowdown in the national economy, resulting in a decline in economic activity in the district, would indeed alleviate pressures in the labor market by reducing the demand for labor. However, given a more optimistic outlook of continued national economic growth, the labor market in the district is likely to become tighter as labor demand rises. This latter scenario presents several problems for the district economy, and firms in the district would have to make some difficult choices. For example, businesses could raise their wages and salaries to attract more workers but at the same time lose competitiveness with the rest of the country as higher labor costs lead to higher prices. Alternatively, firms could refrain from increasing wages and attracting additional workers, and therefore not expand the scope of their operations. Or they could simply relocate or expand into other parts of the country. Regardless of which of these

choices is made, economic growth would slow and the Tenth District would lose some of its ability to attract new businesses.

III. PROSPECTS FOR DISTRICT STATES

While the Tenth District labor market as a whole is clearly very tight, wide variations exist among district states. Nebraska, for example, has one of the tightest labor markets in the country, while the job market in New Mexico is at the other end of the scale. Still, unemployment in most district states is below the national average (Table 1).

Nebraska

The labor market in Nebraska is unquestionably the tightest in the district and among the tightest in the nation. The state has the district's lowest unemployment rate and highest labor force participation rate. In addition, during the 1990s net domestic migration to Nebraska has been marginal when it has been positive at all. As a result of these tight labor market forces, Nebraska employers in almost every industry have complained this year of labor shortages in nearly all labor market segments, not just in specialized areas such as skilled trades and information technology that are in high demand in other states. All of these factors suggest that businesses in the Cornhusker State are likely to encounter more and more problems finding additional workers at current or even slightly increased wage levels in the near future.

Employment growth in Nebraska this decade, at 12 percent, has been impressive but not as rapid as in some other district states. A tight labor market at the beginning of the decade likely kept growth from reaching higher levels. Slow labor force growth in the 1990s helped reduce the state's already low unemployment rate of 3.1 percent in 1989 to a remarkable 2.6 percent in 1997. Nebraska's steady employment growth

	Unemployment rate	Labor force participation rate
UNITED STATES	4.7	67.1
TENTH DISTRICT	4.0	69.6
Colorado	3.3	72.8
Kansas	3.8	70.6
Missouri	4.2	70.9
Nebraska	2.6	73.3
New Mexico	6.2	63.6
Oklahoma	4.1	64.2
Wyoming	5.1	69.0

Table 1 UNEMPLOYMENT AND LABOR FORCE PARTICIPATION RATES, 1997

has come about despite relatively slow population growth this decade. Whereas employment has grown 12 percent in the state since 1989, its population has increased less than 4 percent over that period.

The steady employment growth has been made possible because the labor force participation rate in the state has gone up dramatically. Nebraska's large amount of employment opportunities relative to its population has helped the participation rate jump from 68 percent at the beginning of the decade to an astonishing 73 percent in 1997, the highest level in the district. But such explosive growth in participation likely cannot continue. In the future, Nebraska will have to rely on population growth if its labor supply is to expand.

Prospects for growth in Nebraska's economic population, however, appear weak. The state has historically had slow natural population growth, and net domestic migration to Nebraska has been positive in just two of the last 12 years. In those two years, 1991-92 and 1994-95, the gains amounted to less than 100 people. In the 1980s, Nebraska lost population to nearly every state, including California. Since the 1990-91 recession, however, net migration from a number of states has been positive. As with other district states, the largest source of net migrants in the 1990s has been California.

Colorado

While not quite as distressing as the situation in Nebraska, the labor market in Colorado is still very tight, especially in Denver. The extreme tightness means employers in this high tech state are likely to face increasing difficulties in hiring additional workers at wage levels at or near current labor costs. The future labor supply in the state is likely to be negatively affected in two ways. On the population side, net positive migration flows to Colorado are likely to decline further as the relative employment opportunity gap shrinks between the state and the rest of the nation, in general, and between the state and California, in particular. On the labor force participation side, labor supply growth in the state is also likely to be hampered as growth in participation rates slows to more typical historical averages.

Colorado has witnessed population growth of greater than 20 percent in the 1990s, a figure that has led nearly every state in the district by a wide margin. Only New Mexico has come close. Yet the state's labor force participation rate still jumped from 69 percent in 1989 to close to 73 percent last year due to an amazing 31 percent growth in employment since the beginning of the decade. Thanks to the increase in participation rates, Colorado's labor supply has grown a significant 27 percent this decade. But since growth in the labor supply has been unable to fully match the job gains, the state's unemployment rate has experienced the greatest drop of any district state since 1989, from 5.8 percent to 3.3 percent.

Like Nebraska, Colorado will likely be unable to continue its explosive growth in participation rates, meaning that future growth in its labor supply will have to depend on population growth. A quick look at Colorado's recent domestic migration flows shows that now may not be the best time for such a dependence. Colorado benefited from slow economic conditions in California at the beginning of the 1990s, becoming a net receiver of migrants from that state after losing population to California during the 1980s. In fact, at the peak of domestic migration gains in Colorado (1992-93), close to half of the 48,000 net migrants to Colorado came from California, almost ten times more than from New York, its second-largest source. Since 1992-93, however, population flows into the state have steadily declined, making continued tightness in the Colorado labor market highly probable.

Kansas

As in Nebraska, the labor market in Kansas has been tight for a long time, and has gradually grown tighter. Evidence from Kansas employers this year, in fact, suggests that labor shortages have now extended to such vital job categories as entry-level retail jobs and general production work. In addition, Kansas has lost population due to domestic migration almost every year for the last two decades, with no significant turnaround expected. These factors, combined with other demographic trends in the largely agricultural state, suggest that businesses in Kansas are likely to face increasing difficulties finding capable workers and maintaining labor costs at current levels.

Employment levels in Kansas have grown just 7 percent this decade, less than half the district average. The relatively slow job growth has likely been the result of an already tight labor market in the 1980s. Labor force growth in the state has nearly paralleled growth in employment, leading to a less volatile unemployment rate than in other district states. The Kansas unemployment rate in 1997 was 3.8 percent, similar to the 4.0 percent rate posted in 1989. Labor force participation has increased moderately this decade in Kansas, from 69 percent in 1989 to just under 71 percent last year, helping the state's unemployment rate from going even lower. As in many other district states, however, growth in participation rates is bound to slow in Kansas, meaning that population growth must pick up if the state's labor supply is to expand quickly enough for even normal economic expansion.

But Kansas' population is unlikely to get much help from other states. Net domestic migration to the state has been positive in just one year since the mid-1980s. That lone year, 1991-92, followed a national recession and Kansas, like the rest of the district, benefited from worse economic conditions elsewhere in the country. Also like other district states, Kansas began to have positive net migration from California at the turn of the decade. In fact, California has been the biggest source of net domestic migration to Kansas in every year since 1990.

Missouri

Similar to Colorado, and reflecting the state's strong manufacturing sector, the labor market in Missouri has become very tight very quickly. At the beginning of this decade, the Show-Me state had one of the district's lowest labor force participation rates and an unemployment rate above the national average. By 1997, the exact opposite was true. Even so, the Missouri labor market is still not as tight as in some other places in the district, and there may be room for further growth in the labor supply. Another encouraging note for the state is the trend in net domestic migration. While population growth in Missouri has been well below the district and national averages in the 1990s, domestic migration to the state has not fallen off considerably since after the boom year of 1992-93, as it has in other district states.

Missouri, like Nebraska, has been able to produce healthy employment growth this decade despite rather slow population growth. Job levels in the state have expanded 12 percent, while the population has grown just 4 percent. Growth in Missouri's labor supply, at 11 percent, has also been outstanding but somewhat slower than employment growth. This helped the state's unemployment rate last year fall to 4.2 percent, from 5.5 percent in 1989. But the abundance of employment opportunities in the state relative to its population has also sent Missouri's labor force participation rate skyrocketing. The rate went from less than 67 percent in 1989 to almost 71 percent in 1997. In fact, labor force participation has grown faster in Missouri this decade than in any other district state except Nebraska. As a result of the frantic growth in participation of late, Missouri probably will not be able to rely on this source of labor supply growth as much in the future, meaning growth will have to come from an expansion in the state's population.

While natural population growth in Missouri has been slow for a long time, the news with regard to net domestic migration to the state has been rather promising. Unlike other district states, net migration flows to Missouri have been positive in almost every year since the mid-1980s. The only exception was the recession year of 1990-91. Yet in spite of this good news, the state's high participation rate and low unemployment rate are likely to keep the labor market in Missouri relatively tight into the foreseeable future.

Oklahoma

Like most other states in the Tenth District, Oklahoma has an unemployment rate below the already low national rate. Unlike most of the rest of the district, however, the labor force participation rate in Oklahoma has remained rather stagnant this decade and is well below both the district and national averages. Oklahoma businesses have also expressed fewer problems with labor shortages this year than employers in most other district states. Thus, while the labor market in Oklahoma is certainly tight, the potential for further growth appears to exist there to a greater degree than in many other places in the district. This is especially true given the turnaround in net domestic migration that Oklahoma has enjoyed since the beginning of the 1990s.

Oklahoma's employment growth has been rather slow this decade, at just under 7 percent. Labor force growth, however, has been even slower, at 5 percent, leading to a reduction in the state's unemployment rate from 5.6 percent in 1989 to a seemingly low 4.1 percent last year. Yet, as mentioned above, the labor force participation rate in Oklahoma has remained virtually unchanged this decade at 64 percent. This has meant that new job opportunities in the state have been filled almost solely through growth in the state's economic population, which has itself been rather slow since 1989. Part of the reason for the stagnation in participation rates in Oklahoma has been the relatively small growth in employment opportunities. Another possible explanation for Oklahoma's low participation rates, however, can be found by looking at the composition of the state's population. Oklahoma has the smallest percentage of white males of any district state, at 41 percent of the total population. Likewise, the participation rate among this group, generally the most active group, is the lowest in the district at 72 percent and well below the national average.

Oklahoma's low participation rate provides a reason to be optimistic about growth in the state's labor supply in the near future. As for the contribution of population growth, Oklahoma has witnessed a turnaround in net domestic migration in recent years. Following the district trend, migration to the state was negative in the 1980s and positive in the 1990s. The loss during the 1980s, however, greatly outweighed the small gains made this decade, as over 160,000 more persons left Oklahoma in the six years prior to the 1990-91 recession than moved in. Since the recession, positive net migration to the state has been slightly more than 10,000 persons. But positive migration gains such as these, even if small, will further ease whatever tightness may exist in the Oklahoma labor market.

Wyoming

The labor market in Wyoming, at 5.1 percent unemployment and 69 percent labor force participation, is tight by traditional standards but certainly not as tight as most other places in the district. Still, the state has traditionally had slow labor force growth relative to the rest of the district, and net domestic migration has declined following a boom in the early 1990s. These factors together could make things difficult for employers seeking to expand work forces in the near future at costs near current levels.

Employment growth in Wyoming in the 1990s has been slower than in any other district state, at just 6 percent. Growth in the state labor force has been even slower, leading to a reduction in the state's unemployment rate from 6.3 percent in 1989 to 5.1 percent last year. As for labor force participation, Wyoming's rate has actually fallen this decade, the only district state where this has happened. However, the state was the district leader in participation in 1989, and the 69 percent rate registered in 1997 was still higher than the national average. All the same, room for growth in participation rates does exist in Wyoming to a larger degree than in many district states.

The other contributor to labor supply growth– population growth–has experienced a turnaround in recent years in Wyoming. As in several other district states, Wyoming experienced significant population loss during the 1980s. In fact, in the last six years of that decade, the state lost over 60,000 residents to domestic migration, a huge number considering Wyoming's small population. Wyoming enjoyed positive migration gains in the three years after the 1990-91 recession but has started losing population again in recent years. This change clouds the outlook for the state's labor market in the near future.

New Mexico

Unlike most district states, New Mexico's labor market has not yet experienced a significant degree of tightness. The state's unemployment rate is currently among the nation's highest, while its labor force participation rate is among the lowest. This combination bodes well for employers looking to avoid wage hikes in the near future and may help lure companies facing wage pressures elsewhere, as long as skill levels demanded by those firms can be matched by skill levels available in the state. In addition, complaints of labor shortages by New Mexico businesses have been rather few and far between this year. The state seems therefore to be the best positioned of all district states to benefit from the tightness of labor markets in the rest of the country.

Since 1989, only Colorado among district states has posted higher employment growth than New Mexico's 18 percent gain. However,

this growth has come from a rather small employment base in the state to begin with, meaning the absolute gain has not been as large as in several other district states. The labor force in New Mexico has grown slightly slower than employment, reducing the state's relatively high unemployment rate from 6.7 percent in 1989 to 6.2 percent in 1997. But population growth in New Mexico has been almost identical to the strong employment growth, resulting in a labor force participation rate in 1997 that was largely unchanged from the level posted at the beginning of the decade. The participation rate in New Mexico has consistently been below levels posted in most other district states, maintaining a level of around 64 percent throughout the decade. By 1997, the only other district state with a participation rate under 69 percent was Oklahoma.

In addition to its low labor force participation rate, New Mexico's recent population trends also offer growth potential for the state's labor supply. Since the mid-1980s, New Mexico has been a net recipient of domestic migration in most years. In fact, only in the three years prior to the 1990-91 recession did more people move out of New Mexico than moved in. As in other district states, the primary source of inmigrants this decade has been California. Whether the inflows of potential workers can be maintained remains to be seen, but the current lack of tightness in the New Mexico labor market suggests that economic expansion in the state is unlikely to be held back as a result of labor supply stagnation.

V. CONCLUSIONS

Some analysts believe that future economic growth in the Tenth District and in the nation as a whole is likely to be constrained by tight labor markets. This article has shown that the labor market in the district is actually much tighter than commonly thought.

The labor supply in the district is likely to grow at a slower pace than in the recent past as positive migration flows shrink and growth in labor force participation rates return to more modest historical levels. On the migration side, narrower differences between district and national employment growth rates in general, and between the district and California in particular, should be reflected in lower population gains for the district. Additionally, higher living costs and lower amenity levels, due to fast population growth in several district metropolitan areas, will also contribute to reducing migration gains. On the labor force participation side, it is unlikely that the rapid growth in participation witnessed in the 1990s can be maintained into the future, at least in most district states.

In short, Tenth District employment growth in the short run is likely to be restricted by slow labor supply growth as firms faced with higher labor costs reduce job creation, relocate, or expand into other areas of the country. Each of these possibilities suggest slower economic growth and a less attractive business climate in the Tenth District relative to the nation as a whole.

ENDNOTES

¹ It is important to note that "labor shortage" in this article refers to difficulties faced by firms in hiring additional workers at wage rates which would not jeopardize their current market competitiveness.

² We assume here that state borders are "natural" boundaries for labor markets. Although we recognize the limitations of this assumption, it is likely that differences across states in terms of labor taxes and laws provide at least weak support for such an approach. Additionally, data availability at the state level plays a strong role in this assumption.

³ The official name given by the Bureau of Labor Statistics for the economic population is the civilian noninstitutionalized population.

⁴ Migration data are for all ages, not only 16 years old and older.

⁵ After trailing the nation in the 1980s and early 1990s, the

inflation rate as measured by the CPI has been above the national urban average in Denver since 1992 and in Kansas City since 1996. These are the two largest cities in the district and the only ones for which Bureau of Labor Statistics data are available.

⁶ Fitting a simple second-order polynomial curve to participation rates from 1981 to 1997 shows that the district participation rates were above trend in 1995 and 1996 (R-square = 0.92 for the trend line). The small decline in participation rates in 1997 brought it back to trend. Using other specifications such as linear or exponential yields similar results, with the current rate close to trend. Logarithmic and power trends show the current rate to be above trend but at a lower r-square (around 0.83 for both curves).

⁷ Although the percentage of whites has been declining in both the U.S. and in the district, the decline within the district has been smaller than in the rest of the country.