Introduction

The ability of a regional economy to provide employment growth and economic prosperity is dependent on the availability of economic resources. Indeed, much of state and regional economic development strategy is designed to increase the availability of such resources to create jobs and income. Strategies to provide improved land utilization, enhance capital availability to firms, and infrastructure investment to spur economic growth are all examples of regional and state efforts to develop economic activity. However, physical and financial resources are only part of the economic growth equation. Access to sufficient quantities of high quality labor supply also heavily influences the ability of a regional economy to grow, create jobs, increase incomes, and reduce problems of poverty and income inadequacy.

The decade of the 1990s was characterized by a slowdown in the rate of labor force growth in the nation. In fact during the 1970s and 1980s the nation's labor markets experienced rapid labor force growth that resulted in substantial problems of excess labor supply. High unemployment rates were viewed as core labor market problems during most the 1970s and much of the 1980s until the peak of the economic boom that occurred at the end of that decade.¹ However, during the 1990s the slowing of labor force growth coupled with strong growth in labor demand (following the early 1990s recession) pushed the nation's unemployment rate down to the 4.0 percent level by the end of 2000, the lowest national unemployment rate since the 1960s. In New England the unemployment rate fell to an annual average rate of just 2.8 percent by 2000, reaching a 40 year low. Connecticut's unemployment rate was even lower than that of the New England region as a whole falling to the extraordinarily low level of just 2.3 percent on average during 2000, while the unemployment rate in Massachusetts averaged just 2.6 percent that year.

The reduction of unemployment rates to these "over full-employment levels" shifted the core set of labor market issues for workforce boards from a perspective of dealing with high unemployment and labor surplus to responding to problems of labor

¹ Andrew Sum, et al. *Labor Force Growth in New England: Past Current and Future Trends and Their Implications for Workforce Development Policy*, Center for Labor Market Studies, Northeastern University, June 2002.

shortages and skill deficits. Increasing evidence of labor shortages developed throughout New England during the latter half of the 1990s, especially in Connecticut and Massachusetts—two states characterized by an industry structure weighted toward a more high-end labor demand for college graduates.²

As we will discuss in greater detail below, the tightness that characterized the Connecticut, Massachusetts and New England regional labor markets at the end of the 1990s was in large measure attributable to very slow growth in regional labor supply. The employment situation has changed considerably in the region as a whole over the past 22 months as labor demand has declined with the onset of a national economic recession. Indeed the number of unemployed workers in Connecticut (and the region as a whole) has increased by about 70 percent since January of 2001. By October of 2002, the state's unemployment rate increased by 1.7-percentage points to 4.2 percent. In Massachusetts the situation has deteriorated even more sharply. The number of unemployed workers in the state has increased more rapidly than any state in the nation doubling since the beginning of the recession in early 2001. Despite the rising unemployment rate in both states and the region there is substantial reason to believe that labor shortages will once again materialize as the economic recovery gets underway, and the nation resumes a strong and consistent path of business expansion. Labor supply issues—both in quantity and quality will loom large in the economic growth debate in Southern New England and the CAP region

Labor Force Developments in the CAP Region

Information on trends in labor force growth that can provide detailed insight into a variety of labor supply developments at the state and local level have just been released by the U.S. Bureau of the Census as part of its 2000 decennial census program. These data differ from that released by the Bureau of Labor Statistics federal-state labor market information program in a number of important ways. For our purposes, the census findings provide critical insights into not only trends in the size of state and local labor

² See: (i) Neeta P. Fogg and Paul E. Harrington, *Threats to Sustained Economic Growth*, The New England Council September, 2000; (ii) Neeta P. Fogg and Paul E. Harrington, *Teacher Labor Market*

force, but also information on key labor force characteristics—information that is essential to properly developing effective human resource program strategies that can respond to labor supply issues.

The measure of an area's labor force is widely used as a proxy for available labor supply to a state or region. An area's labor force is simply made up of all those residents who are in the civilian non-institutional population and are of working age (16 years or older) and who are active participants in the job market at a point in time. In order to be counted as active labor market participants, working age persons must either be classified as employed or unemployed and be actively seeking employment.

Between 1990 and 2000 the labor force in the nation was estimated to have increased by a little less than 12 percent, a rate of labor force growth well below the 18 percent rise in the 1980s and the 29 percent increase that occurred in the 1970s. The size



<u>Chart 1:</u> <u>Trends in the Size of Resident Civilian Labor Force Growth in the U.S.,</u> New England, Connecticut, Massachusetts and the CAP region, 1990 to 2000

Imbalances in Massachusetts, The New England Council, August, 2001

of the New England labor force increased quite modestly during the 1990s with a rise of just 2.5 percent in ten years. The number of active participants in the Connecticut labor force actually declined during the 1990s falling by more than 31,000 workers or by 1.8 percent over the decade. In contrast, the size of the labor force in Massachusetts did increase over the 1990s (albeit marginally) rising by 2.0 percent over the 10-year time period. In the CAP region the size of the labor force declined by 2.7 percent falling by nearly 20,000 workers between 1990 and 2000. The losses in the CAP region were concentrated in the Greater Hartford service area (-5.1 percent) and in Hampden County (-3.5 percent). The Franklin Hampshire service area experienced a modest rise in the size of its labor force. However, its rise of 5.5 percent stands in marked contrast to labor force losses in the rest of the CAP region.

The labor force declines that occurred in the state and CAP region sharply limited the new job creation capacity of both the state and area. Absent gains in the size of the labor force, employers were confronted with both quantitative and qualitative labor supply problems by the end of the decade. Unable to find sufficient labor supply, employers increasingly chose to locate their facilities outside both the region and the state.

The labor force declines that occurred over the decade of the 1990s in the CAP region were not evenly distributed across the communities located in areas that compose each of the three respective service areas that compose the CAP region. The data provided in Table 1 examine labor force developments in selected communities in each of the three CAP service areas. The top half of the table provides information on the three communities in each area that had the largest decline in the size of its labor force. The bottom half of the chart identifies the top three communities in each region in terms of labor force growth over the decade.

The city of Hartford experienced a dramatic decline in the size of its labor force during the decade of the 1990s. The labor force in the city fell by more than 13,000 workers representing a one-fifth loss in the number of labor force participants in just ten years. The loss in the city of Hartford accounted for two-thirds of the labor force decline that occurred within the Greater Hartford region. This decline represents the largest loss in labor force of any community within the CAP region. East Hartford also experienced considerable decline with the size of its labor force falling by 14 percent over the decade and Enfield also experienced double digit labor force decline.

			Absolute	Relative	
	1990	2000	Change	Change	
Communities with the largest labor force decline					
Greater Hartford		- U			
East Hartford	29,052	24,874	-4,178	-14.4%	
Enfield	25,679	22,760	-2,919	-11.4%	
Hartford	63,713	50,431	-13,282	-20.8%	
Hampden					
Chicopee	29,147	27,112	-2,035	-7.0%	
Holyoke	18,290	15,919	-2,371	-13.0%	
Springfield	72,016	66,262	-5,754	-8.0%	
Franklin Hampshire					
Deerfield	2,997	2,770	-227	-7.6%	
Gill	951	786	-165	-17.4%	
Leverett	1,102	985	-117	-10.6%	
Communities wi	th the la	rgest lab	or force inc	crease	
Greater Hartford					
Glastonbury	16,045	17,059	1,014	6%	
Manchester	29,591	30,592	1,001	3%	
West Hartford	31,154	33,116	1,962	6%	
Hampden					
Brinmfield	1,420	1,782	362	25%	
Southwick	4,409	4,818	409	9%	
Westfield	19,960	20,868	908	5%	
Franklin Hampshire					
Amherst	18,481	20,090	1,609	9%	
Belchertown	5,916	7,613	1,697	29%	
Southhampton	2,604	3,191	587	23%	

<u>Table 1:</u> <u>Trends in the Size of Resident Civilian Labor Force in Selected</u> <u>CAP Communities1990 to 2000</u>

Labor force losses in the Hampden area were heavily concentrated in Chicopee, Holyoke and Springfield, although the relative fall in the size of the labor force loss was substantially less than that observed in the city of Hartford. Springfield experienced the largest labor force loss in the Hampden service area with its labor force declining by more than 5,700 workers. By itself, Springfield accounted for 72 percent of the overall labor force decline that occurred in the Hampden service area between 1990 and 2000.

Despite the increase in the number of persons participating in the Franklin-Hampshire labor force, several smaller communities within the area experienced labor force decline including Deerfield, Gill and Leverett. Strong growth in Belchertown and Southhampton along with substantial gains in Amherst led to the overall labor force growth in the area. These three towns together accounted for 44 percent of the total labor force growth that occurred in the Franklin Hampshire service area during the 1990s.

Gender Differences in Labor Force Growth

The declines in the size of the labor force in the CAP region were <u>exclusively</u> <u>associated with declines in the number of men</u> who were actively participating in the labor market. Between 1990 and 2000 the size of the overall CAP labor force declined by 19,900 workers. The findings in Table 2 reveal that over that same period of time the

			Absolute	Relative
	1990	2000	Change	Change
Male Labor Force				
Greater Hartford	208,375	192,281	-16,094	-8%
Hampden	120,171	112,652	-7,519	-6%
Franklin-Hampshire	64,574	66,524	1,950	1%
CAP	393,120	371,457	-21,663	-6%
Connecticut	956,262	918,443	-37,819	-4%
Massachusetts	1,714,967	1,717,007	2,040	0%
Female Labor Force				
Greater Hartford	184,964	181,132	-3,832	-2%
Hampden	106,189	105,761	-428	0%
Franklin-Hampshire	61,618	67,620	6,002	10%
CAP	352,771	354,513	1,742	0%
Connecticut	832,431	838,665	6,234	1%
Massachusetts	1,530,983	1,595,032	64,049	4%

<u>Table 2:</u> <u>Trends in the Size of the Labor Force in the CAP Region,</u> <u>Connecticut and Massachusetts by Gender, 1990 to 2000</u>

number of men in the CAP labor force declined by 21,600 a loss equal to 109 percent of the total labor force decline in the region. During the same time period the number of

females who were active participants in the CAP labor force increased slightly by about 1,700 women between 1990 and 2000. Greater Hartford experienced a very large loss in the number of males who actively participated in the labor force over the decade. The number of men in the labor force of the Greater Hartford service area fell by more than 16,000 over the decade, with the city of Hartford accounting for more than one half of the loss that occurred in the service area. Indeed, the number of men in the Hartford labor force fell by one-quarter between 1990 and 2000. Unlike the CAP region as a whole the Greater Hartford region also experienced a decline in the number of women in the labor market with a loss of more than 3,800 women in the service areas job market over the decade.

The male labor force in the Hampden area also declined sharply with losses of more than 7,500 male workers in the area's labor force over the decade. Like the Greater Hartford region, the Hampden area experienced also experienced comparatively small declines in the number of females who actively participated in the labor market over the decade. Hampden's male labor force losses were very heavily concentrated in the city of Springfield. The loss of nearly 3,500 men in the city's labor force accounted for about one half of all of the male labor force loss that occurred in the region. The loss of these 3,500 men meant that the city's male labor force fell by nearly 12 percent in just ten years.

As we noted earlier the size of the labor force in the Franklin Hampshire region actually increased modestly between 1990 and 2000. However, only a relatively small proportion of this increase occurred among men in the region. Indeed between 1990 and 2000 the male labor force in the region increased by just under 1,000 workers representing a rise of 1 percent in the size of the area's male labor force. However, the number of women in the Franklin Hampshire labor force growth increased by 6,000 over the decade- a rise of 10 percent in ten years.

Clearly, the most serious labor force problem in the CAP region is associated with the disappearance of a considerable number of men from the labor markets of Greater Hartford and Hampden. Even in Franklin-Hampshire where the labor force did increase, more than 80 percent of the net labor force growth occurred among women. The number

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of women in the area's labor force increased at a rate 10 times that of men. The labor shortage problems that were experienced in the late 1990s could be characterized as a shortage of men in the labor market. But what happened to these men? Did they simply move out of the state or the region thus reducing the size of the male labor force or did they remain in the state or the region, but decide to withdraw from the labor market? The kinds of strategies that one would adopt to respond to the labor supply shortage differ sharply depending on the nature of the problem.

In order to assess this issue more carefully the following sections of this report examine developments in the size of the resident working age population in the region and the state to assess the impact that population loss may have had on labor supply. We also analyze developments in the labor force participation rate of the working age population to determine the extent to which labor force behavioral changes may have influenced the supply of labor in the region.

Sources of Labor Force Decline in the CAP Service Area

The Role of Population Growth

Changes in the size of a state or region's labor force are in part driven by trends in overall population developments. During the decade of the 1990s the size of CAP region's population increase was quite modest in relation to the nation as a whole and to most other states in the nation. Between 1990 and 2000 the population in the state of Connecticut increased by over 118,000 persons representing a rise of just 3.6 percent. This slow population growth rate resulted in Connecticut being ranked 47th out of 50 states on the basis of population growth over the decade of the 1990s. Population also grew at a slow rate in Massachusetts during the 1990s rising by 332,000 or just over 5 percent between 1990 and 2000 also ranking Massachusetts near the bottom of the state population growth distribution.

			Absolute	Relative
	1990	2000	Change	Change
Franklin Hampshire	231,874	239,140	7,266	3.1%
Greater Hartford	720,495	732,627	12,132	1.7%
Hampden	456,310	456,228	-82	0.0%
CAP Total	1,408,679	1,427,995	19,316	1.4%

<u>Table 3:</u> <u>Trends in the Size of the Total Population in</u> <u>the CAP Region, 1990 to 2000</u>

Population increases within the CAP area were even more modest. The population of the CAP service area increased by just 1.4 percent over the entire 10-year period. The Hampden service area posted essentially zero population growth, while Greater Hartford's population increased by just 1.7 percent over the decade. Substantial population losses in the large central cities of Hartford and Springfield contributed to the slow population growth within the region. The population growth that did occur in the CAP region was largely the product of new foreign immigration. Indeed foreign immigration accounted for 106 percent of overall population growth that occurred in the CAP region. This means that in the absence of foreign immigration the CAP region's population would have actually declined over the 1990s decade.

Trends in the Working Age Population

The total number of persons who actively participate in an area's labor force at a point in time is determined by two critical factors: the size of the resident working age population in that area and the labor force participation rate of the working-age population. The decline in the number of men the CAP labor force that occurred during the 1990 could be the result of <u>a decline in the number of men who reside in the region</u>. Alternatively, the decline in the male labor force could be the product of <u>reduced job</u> <u>market attachment</u> of working age men who reside in the region. Men may now supply labor at reduced rates compared to 1990 preferring some other type of activity not connected to the world of work. The data provided in Chart 2 examine trends in the size

of the male labor force in the state and the CAP service area as a whole between 1990 and 2000.

The chart reveals that the number of men in the working age population in the CAP region remained essentially unchanged (+236) over the decade of the 1990s even as the number of men in the labor force declined. At the same time the number of men who



actively participated in the CAP region's labor force fell by nearly 21,700. During the same time period the number of working age women increased the CAP region by just under 500 while the number of women who were active participants in the CAP job market increased by just over more than 1,700. Thus, even as both the male and female working age population in the region increased between 1990 and 2000, the direction of labor force growth of the two genders was different. <u>As the male working age population in the region in the labor force fell substantially.</u>

In the Greater Hartford area the number of male working age residents fell by a considerable amount over the decade. The number of males over age 16 declined by nearly 2,700 between 1990 and 2000. However, the size of the male labor force decline in the region was far greater. Indeed the number of men in the labor force fell by more than 16,000 over the decade. This loss represents a decline in the size of the male labor force that was 6 times greater than the decline in the size of the area's male population. In contrast both the female population and labor force declined much more modestly over the decade. However, the decline in the number of women in the job market in Greater Hartford was also about 6 times greater than their decline in the working-age population. The number of working age men in the Hampden service area remained essentially unchanged between 1990 and 2000. Yet during that period of time the number of men in the labor market fell by more than 7,500. These findings suggest that population loss alone was not the primary cause of the reduction in the size of the male labor force. Instead it appears that men reduced their level of attachment to the job market over the decade.

Changes in the Labor Force Participation Rate

The size of a state or region's labor force is determined not only by the size of its resident working age population, but also by the labor force participation behavior of that population. The labor force participation rate serves as a basic measure of the labor force attachment of an area's working age population. It measures the percent of the resident working age population that was either employed or unemployed at a point in time. Estimates of the labor force participation rates of the working age population by gender for CAP region can be found in Chart 3.

Similar to the differences in the labor force participation trends between men and women in the nation, the pattern of labor force participation between men and women varies somewhat in the CAP region as a whole and the three workforce development service areas that compose the CAP region. The data in the chart reveal that although substantial gaps exist in labor force participation rates between men and women in the CAP region, the size of these gaps narrowed somewhat during the 1990s. At the time of

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<u>Chart 3:</u> <u>Trends in the Labor Force Participation Rate in the CAP</u> Service Area, 1990 to 2000

the 1990 decennial census 59.7% percent of working age women across the CAP area were active participants in the labor market, a level that remained almost unchanged by the time of the 2000 decennial census. Men were considerably more likely to participate in the labor market in 1990 in the region. At that time the male labor force participation rate was 74.9 percent. However, by 2000 the male labor force participation rate in the region declined to 72.8 percent. The entire reduction in the participation rate gap between men and women is attributable to the decline of 4.1 percentage points in the male labor force participation rate also had a powerful effect on the nature of overall labor force growth in the state. The analysis below provides insight into the overall impact of the male participation rate decline on the overall size of the state's labor force.

Table 5 provides a summary of the population, labor force participation rate, and labor force size developments among men in the CAP region between 1990 and 2000. In

order to assess the impact of the reduction in the male labor force participation on the size of the overall labor force in the state we applied the 1990 male labor force participation rate to the 2000 male working age population to simulate the size of the male labor force if the male labor force participation had remained unchanged. The difference between this simulated figure and the actual size of the 2000 labor force is an estimate of the number of potential workers lost in the state as men changed their workforce attachment behavior.

Table 5:

Male Working Age Population, Labor Force Participation Rate				
and Labor Force Size in CAP Region, 1990 to 2000				
	Working Age	Labor Force		
	Population	Participation Rate	e Labor Force	
1990	524,728	74.9%	393,120	
2000	524,964	70.8%	371,457	
Change	236	-4.1%	-21,663	
1990 Male Labor	force * 2000 N	Male Working =	Hypothetical 2000	
Participation Rate	Age Pe	opulation	Male Labor Force	
74.9%	* 5	524964 =	393198	
Hypothetical 2000	male labor force	e = 393,198		
<u>(-) Actual 2000 III</u>	ale labor force	= 3/1,43/	-	
Labor force loss fr male labor force	om decline in participation	= 21,741		

The findings of this analysis reveals that had the labor force participation rate of men in 2000 remained at its 1990 level, the CAP region would have had an additional 21,700 workers available to supply labor. These findings imply that for every 1-percentage point decline in the male labor force participation rate, the region lost 5,300 potential workers. Instead of the actual labor force losses of 21,600 workers experienced over the decade, the region would have had no net loss in labor supply if the male labor force participation rate had remained at the 1990 level. The addition of 21,000 workers to the region's labor supply would have provided the economy with the productive potential to create a considerably larger number of jobs than were actually created, which

in turn would have resulted in a higher level of output, sales and income in 2000 for the entire CAP region.

A similar analysis of male labor force participation developments in the Greater Hartford service region is provided below (Table 6). The analysis reveals that had men continued to participate in the labor force in 2000 at the same rate as they did in 1990, the size of the male labor force in 2000 would have been 206,325—a level that is considerably larger than the actual labor force in the region in 2000 (192,281). If the participation rate for men had remained at 76.4 percent, then the labor force in the region would have had more than 14,000 additional workers to supply labor to area firms.

<u>Table 6:</u>

<u>ruble 6.</u>				
Male Working Age Population, Labor Force Participation Rate				
and Labor Force Size in the Greater Hartford Area, 1990 to 2000				
	Working Age	Labor Force		
	Population	Participation Rate	Labor Force	
1990	272,738	76.4%	208,375	
2000	270,060	71.2%	192,281	
Total Change	-2,678	-5.2%	-16,094	
1000 Mala Labord	formen * 2000	Molo Working -	Uvmothatical 2000	
1990 Male Labor	lorce * 2000	Male working =	Hypothetical 2000	
Participation Rate	Age F	opulation	Male Labor Force	
.764	*	270,060 =	206325	
Hypothetical 2000	male labor for	ze = 206,325		
(-) Actual 2000 ma	ale labor force	= -192,281	-	
Labor force loss fr	om decline in	-14.044		
male labor force participation				

The results for a similar analysis for the Hampden region also reveal that all of the male labor force loss that occurred in the service area was not the result of a decline in the population of working age men (Table 7). The data reveal that like the CAP region as a whole the decline in the labor force participation rate of men from 73.1 percent to 68.5 percent between 1990 and 2000 in the Hampden region accounted for the entire labor force loss that occurred in the region over the decade.

	Working Age	Labor Force	Labor Force
	Population	Participation Rate	e
1990	164,317	73.1	120,171
2000	164,341	68.5	112,652
Total Change	24	4.6	7,519
1990 Male Labor 1 Participation Rate	force * 2000 Age P	Male Working = Population	Hypothetical 2000 Male Labor Force
.731	* 1	= 64,341 =	120,133
Hypothetical 2000 (-) Actual 2000 ma	male labor forc	e = 120,133 = 112,652	_
Labor force loss fr male labor force	om decline in participation	= 7,481	_

<u>Table 7:</u>
Male Working Age Population, Labor Force Participation Rate
and Labor Force Size in the Hampden, 1990 to 2000

The findings for the CAP region and the Greater Hartford and Hampden service areas clearly reveal that a very small part of the decline in size of the labor force that has occurred in either region or in either of the areas is associated with declines in the size of the working age population. However, our earlier assessment of population developments makes clear that slow population growth clearly limits the ability of either the state or the region to substantially increase labor supply. Nonetheless, all of the labor force decline that occurred in the CAP region as a whole and in the Hampden area and most of the decline in the Greater Hartford area is the result of a behavioral change among male residents. Men simply participated in the labor force at lower rates than they had ten years ago.

Leaders in the CAP region have long recognized the problem of slow labor force growth and have tried to implement a set of activities designed to stem the out-migration that has occurred in the population during the 1990s. This strategy is a difficult one to implement as large cost of living differences have developed between the southern New England region and much of the rest of the nation. State and local workforce officials should begin to develop a set of strategies that can help increase the labor force

<u>attachment of men who already reside within the CAP region.</u> It would seem that such an effort may be more effective in bolstering state and local labor supply compared to a population strategy that must operate in the face of adverse geographic cost of living differentials.

Labor Force and Age

The overall rate of labor force participation of men is itself influenced by the age distribution of men in the population. For instance, holding other factors constant (such as educational attainment, marital status, and the like) we might reasonably expect that a state or region with a disproportionate number of elderly men (65 and over) would have a lower overall rate of labor force participation. Generally, we would expect many older men to withdraw from the labor market as they reach retirement age. Analyzing data on the age composition of the working age male population can help us gain some insight into the overall labor force participation rate in the CAP region. Our analysis will focus on the CAP region as a whole and the cities of Hartford and Springfield.

Compared to other cities in the CAP region, in 2000 the male working age population in the city of Hartford was quite young. The teenage population (16-19) and the young adult population (20-24) together accounted for about 16 percent of the male working age population in the CAP region. In Hartford 22 percent of all working age men were between the ages of 16 and 24 and in Springfield it was just over 20 percent. Both cities also had much larger shares of men aged 25 to 34. Men in this age group

<u>Table 8:</u>	
The Age Distribution of the Male Wo	rking Age Population
in the CAP Region and the Cities Hartfo	ord and Springfield, 2000

Age Group	CAP Region	City of Hartford	City of Springfield
16-19	7.7%	10.3%	9.2%
20-24	8.4%	12.1%	11.4%
25-34	16.8%	21.4%	19.8%
35-44	21.9%	20.9%	20.5%
45-54	18.6%	15.1%	15.5%
55-64	11.4%	8.8%	9.3%
65 or older	15.2%	11.4%	14.3%
Total	100.0%	100.0%	100.0%

accounted for 16.8 percent of the working age male population in the CAP region during 2000. In Hartford they accounted for 21.4 percent of the working age male population and in Springfield 19.8 percent. Indeed in Hartford about 44 percent of the working age male population was under the age of 35 and about 41 percent was below 35 in Springfield. In contrast only 33 percent of all working age males in the CAP region were under age 35.

The rate at which individuals participate in the labor force is closely associated with the age of the individual. The data provided in Chart 4 examine the labor force participation rate of males by age in the CAP region and in the cities of Hartford and Springfield. The data reveal an inverted U pattern of participation among men in all three areas. That is, the labor force participation is low among younger males and rises with age and reaches a maximum after which it declines among older males. For example, in the entire CAP region about half (52.7 percent) of 16- to 19-year old males were active participants in the job market at the time of the 2000 census. Following the inverted-U pattern, the labor force participation increased with age. Between the ages of 20 and 24, the male labor force participation rate was 75.9 percent after which it peaked at 87.5 percent for males aged 45 to 54. After this age, participation rates begin to decline reaching 70.7 percent in the pre-retirement group of men between ages 55 and 64 and falling to just 18 percent among those men aged 65 and over.

The data provided in Chart 4 reveal that in both Hartford and Springfield the labor force attachment of working age men is substantially lower than that of men in the CAP region as a whole. In Hartford male teens aged 16 to 19 had a participation rate of 40.6 percent versus 52.7 percent for the CAP region as a whole—a difference of 12percentage points. Male teens in Springfield had a labor force participation rate that was about 5 percentage points below that of their counterparts throughout the CAP region. Substantial differences also existed in the participation rates of men aged 20 to 24 between Hartford, Springfield and the CAP region as a whole. Men aged 20 to 24 in both cities had participation rates that were about 5 percentage points below that of the CAP region. Among men aged 25 to 34 the labor force participation gaps between the two



Chart 4: The Labor Force Participation Rate of Working Age

cities and the region as a whole were wider still. Region wide men in this age group were in the labor force 84 percent of the time. However, in Hartford their participation rate was only about 77 percent and in Springfield it was 80 percent.

In the cities of Hartford and Springfield the lower labor force participation rates of young men under the age 35 combined with a higher concentration of young persons in male population resulted in a lower overall level of male labor force attachment relative to the region as a whole. However, the relatively young age structure of the working age population is not the only factor that depresses the size of the male labor force in each of these cities. The size of the differentials in job market attachment actually increased with age between the cities and the CAP region. For men between the ages of 35 and 44 a 16-percentage point gap existed in the level of labor force attachment between Hartford residents and the CAP region as a whole. In Springfield this gap was about 9-percentage points.

Efforts to increase the size of the male labor force in the CAP region are best focused on strategies that can improve the job market attachment of men. Frequently, depressed labor force attachment like that observed among men in central Hartford and Springfield is closely associated with low levels of educational attainment and poor basic skills including reading, writing, English speaking and math skills. Currently, data are not yet available from the 2000 census on the educational characteristics of those in the labor force at the state and local level. However, data are available on the educational attainment of the overall adult population (25 years or older).

Analysis of the educational attainment of the adult population in the CAP region reveals that low levels of labor force attachment were closely related with low levels of educational attainment. The data in Chart 5 present the proportion of adults who dropped out of high school in the entire CAP region and the three service areas as well as the cities of Hartford and Springfield. In the entire CAP region, nearly 1 out of every six adults who were 25 years or older failed to complete high school. The proportion of high





school dropouts in the adult population of Hartford city was staggering. Nearly 4 out of 10 adults in the city had failed to complete high school at the time of the 2000 decennial census. This proportion was nearly 2.5 times as high as the proportion of adult high school dropouts in the entire CAP region. Springfield city also had a high proportion of high school dropouts in its adult population (27 percent).

The low overall level of educational attainment in the cities of Hartford and Springfield clearly underlie much of the weak labor force attachment in these cities. Strategies designed to raise basic skills and educational levels of the population especially among young men can help solve problems related to both the quantity and quality of labor supply in these cities and the entire CAP region.

Labor Force Constraints on Job Growth

Decline in the labor force meant that the CAP region was quite limited in its ability to add wage and salary jobs over time. As noted in our earlier report, the region was barely able to recover the jobs that it lost during the recession of the early 1990s.³ Between 1991 and 2000, employment grew by only 4 percent in the CAP region versus 12 percent in Connecticut and 21 percent in Massachusetts. The job growth rate in the Greater Hartford area was under 2 percent over the nine year time period between 1991 and 2000. The labor force and job growth problems have plagued the entire Northeast region of the nation, although the problems are much more acute in the CAP region.

The slowest growing states in the nation are all concentrated in the Northeast region of the nation. Connecticut ranked 50th out of all states on the measure of labor force growth and was the only state in the nation to post a decline in the size of its labor force over decade of the 1990s. The data on labor force growth rates and job growth rates reveal that those states with very slow labor force growth all had rates of new job creation that were well below the national average. The job creation rates of some Northeastern states were somewhat higher than their rate of new labor force growth

³ Paul Harrington and Neeta Fogg, "Population, Labor Force, and Wage and Salary Employment Developments in the CAP Region, Connecticut and Massachusetts: The Context for Present and Future Labor Shortage Problems," June 2002.

because a recession gripped the Northeast during 1990. This recession sharply increased the number of unemployed workers who were later re-employed as the economy began to recover.

For example despite the decline in its labor force, Connecticut as well as the CAP region was able to generate some employment over the decade. However, the size of this employment expansion was constrained by the lack of labor force growth—all of which is attributable to the decline in the male labor force. By 2000 Connecticut was ranked 50th out of 50 states in its ability to generate new employment opportunities. The connection between labor force growth and new job creation is quite strong. The correlation coefficient between labor force growth rates and new job creation rates is 0.97 indicating a very strong positive relationship between labor force growth and employment expansion.

Education and training strategies that emphasize basic skills, occupational proficiency and effective job development and placement through close links to the employer community are essential in providing upward mobility to those left behind in the "New Economy" of the region. However, given that the entire decline in the CAP region's labor force was attributable to a decline in the male labor force in the region, workforce development strategies clearly need to focus on the educational and skill deficits as well as other factors that underlie the decline in the male labor force attachment in the region.. Such strategies are critical if the region is to meet labor supply needs of employers who are quite likely to be confronted with labor shortages as the region's economy begins the process of recovery from the current recession.