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## Agricultural Worker Trends and Issues in the Mountain West

Based on a presentation at the Changing Face of Rural America conference, May 2003, Asilomar, CA

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### Abstract

The relative growth in employment and the Hispanic population were greater than overall population growth in the Mountain West, and even agricultural workers, wages, and employer numbers increased, countering U.S. trends. These trends, together with labor market studies showing agriculture as a primary first employer of Hispanic immigrants, would suggest that some of the population and economic growth in the Mountain West region has been due to increased agricultural and farm-related employment. This article focuses on exploring these employment and demographic trends, as well as discussion of related management and political issues.

### Introduction

Rural areas of the Mountain West are different from other rural areas of the United States for many reasons, including the importance of public lands, the relative scarcity of towns and cities, and increased attention to natural amenities as a potential rural development strategy. In the agricultural sector, growth in farm production and related employment exceeds the national average. The growth in farm-related employment may be due to a variety of factors including the increase in demand for fresh fruits and vegetables that are well-suited to production in Western climates, relocation of food industries following the increased consumer population in the West, or the less stringent regulations and planning barriers for concentrated livestock enterprises in less populated rural areas. Regardless of the reason for increased agricultural employment, there continues to be anecdotal evidence relating farm and farm-related jobs to growth in the Hispanic population of a place. But, there is little firm evidence. Despite the reasons, growth in the illegal immigrant sector of the population has presented challenges to some communities, but these challenges may be mitigated by policy initiatives under debate.



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In the policy arena, in January 2004 President Bush unveiled a program that would permit the six to eight million unauthorized foreigners throughout the U.S. with jobs to become temporary legal residents (Rural Migration News). Under this program, temporary residents would be free to travel in and out of the U.S., get Social Security Numbers and driver's licenses, and could apply for immigrant visas. The Fair and Secure Immigration Reform (FSIR) program aims to fulfill Bush's goal of "matching willing foreign workers with willing U.S. employers when no American can be found to fill those jobs." The expected impact is to assist homeland security by controlling borders, support sectors of the economy in need of willing employees, protect the rights of legal immigrants, and provide incentives for workers to return to their home country after work is concluded (White House press release, January 7, 2004).

Department of Homeland Security Secretary Tom Ridge set the stage for the administration proposal by calling for some kind of legalization program, saying "as a country, we have to come to grips with the presence of eight to twelve million illegals. I think there's a growing consensus that, sooner rather than later, we need to deal with the reality that these men, women and families are here, many contributing - most contributing -- to their community, paying taxes, paying into Social Security. We have to legalize their status." (Rural Migration News) Yet, the connection between Hispanic settlement and employment growth, as well as the interdependence between undocumented residents with current workers in "immigrant magnet" industries is not well studied or understood.

The 2000 Census population and Hispanic demographic data for Mountain West U.S. counties, in addition to worker information from several industries that are important entry and long-term employers for recent immigrants, is explored in this paper. These data are used to describe the population, employment and agricultural-related employment dynamics of the Mountain West. Understanding the general trends and interdependence between Hispanic growth and agricultural workers may suggest the relative importance and potential positive outcomes of the proposed policy changes on farm managers and Mountain West communities.

### General Trends for the Mountain West

For the purposes of this paper, the Mountain West is defined as the Central and Northwest states of the Western region, minus California. These states include Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming. Washington and Oregon were included in the region because the agricultural workforces of those states may play an important role in the Intermountain migrant stream, and because some of the characteristics of those two states (high population and employment growth) are similar with other states in the region (Thilmany and Miller). It should be noted that the list of states included in this analysis is very closely aligned with those states with the highest population growth rates in the country between 1990 and 2000; Colorado (#3), Idaho (#5), Montana (#20), Nevada (#1), Oregon (#11), Utah (#4), and Washington (#10). Wyoming is the region's only state that had below average growth (ranking #32 in terms of population growth).

Figure 1. Employment and Hispanic Population Growth, 1990 – 2000

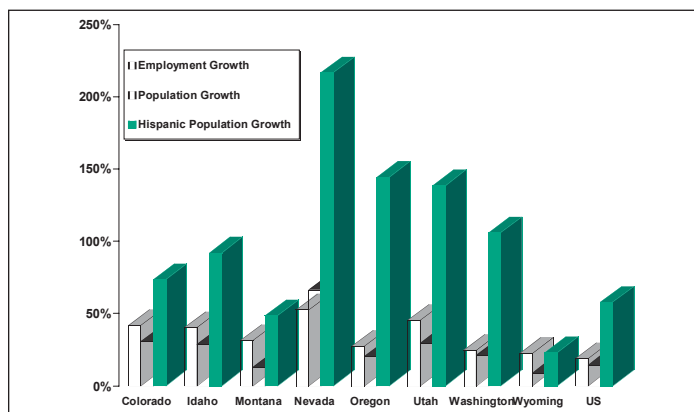
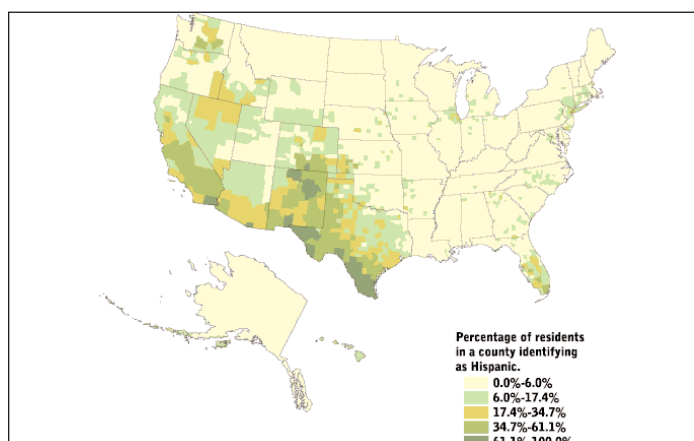


Figure 2. Hispanic Population share in the U.S., by county



Source: U.S. Census

Figure 1 shows the total population, Hispanic population, and employment growth rates for the period of 1990-2000, based on U.S. Census and Bureau of Labor Statistics data. Although population growth was relatively high in this region, growth in employment and the Hispanic population were even greater during the 1990s for most states in the region. Figure 2 also shows that the absolute Hispanic population share in 2000 is now higher in many areas of the Mountain West region than the rest of the U.S., while there are some areas (mostly in the North Central area of the region) that still report a small share of Hispanics.

Between 1990 and 2000, Nevada saw the highest employment and Hispanic population increases, alongside its 67 percent population growth, while Wyoming lagged behind the rest of the region in each of the same categories. All but Wyoming saw at least 50 percent growth in their Hispanic population and only Nevada had population growth that outstripped employment growth in relative terms.

There is some evidence that Hispanic population growth mirrors employment growth across states, but the growth in Hispanics appears to be far greater than the other graphed indicators. In subsequent sections of this paper, the relationship between Hispanic population growth and farm-related employment will be explored to determine whether the farm sector of the economy may be one of the drivers of Hispanic growth, and thus, whether any new employment program for immigrants will influence farm managers and communities in the region.

### The Agricultural Workforce

Workers on farms are grouped in three categories by the USDA; self employed, unpaid, and hired workers. For this study, we are primarily focused on hired workers since they are most likely to be non-family and new to communities. U.S. farms directly hired 836,000 workers in 2003, down 5.6 percent from 2002's level (885,700). During this period, hired workers' average hourly wage increased from \$8.81 to \$9.08, while the average hours worked dropped slightly from 39.8 to 39.5 per week. At the same time, the number of ag service workers hired by farms increased from 271,000 to 306,000, accounting for a large share of the downturn in directly hired workers. This is an important trend, because past research suggests that

employers may turn to these ag service companies, also called farm labor contractors, if they perceive risk in hiring workers with questionable immigrant status or paperwork (Taylor and Thilmany). These risks would decrease under proposed policies and may have positive or negative effects on settlement of Hispanic families in farm communities in the long run.

Some trends for the Mountain West differed from U.S. averages. The states included in this study make up USDA's Mountain I (Idaho, Montana, and Wyoming), Mountain II (Colorado, Nevada, and Utah) and Pacific (Oregon and Washington) regions for farm labor classifications. The Mountain II region actually saw increased hired labor numbers between 2002 and 2003, while the Mountain I and Pacific region's trends mirrored the U.S. downturn in worker usage. While Pacific region wages actually declined by \$0.05 per hour, the Mountain I and II regions' wages increased between 2002 and 2003 by \$0.02 and \$0.47 per hour, respectively, compared to the \$0.27 national average increase in wages. The increased worker numbers and wages in Mountain II region would suggest strong labor demand for farm managers, while downturns in the other regions would suggest less demand, or alternatively, more labor management transferred to contractors.

Following USDA Economic Research Service cost of production data, where the U.S. is divided into bigger regions, we can focus on the Mountain (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming) and Pacific (California, Oregon and Washington) regions. For the U.S., the share of production expenses connected with hired labor was 11.2 percent in 2002, up from 10.0 percent in 1997 and up from 9.5 percent in 1993, a 17.9 percent increase over the decade. For the Mountain region, the share of production costs associated with labor in 2002 were 12.0 percent of total production expenditures, a 29 percent increase from being 9.3 percent of production expenses in 1993. In the Pacific region, 2002 expenditures were 26.6 percent of production expenses, a 23.7 percent increase from 1993 (compared to 21.5 percent in 1993 and 25.6 percent in 2000). In both cases, the growth rates of relative labor usage were greater than the national average.

In absolute terms, Mountain producers spent \$13,992 per year on hired labor in 2002, for a total of \$1.84 billion in payroll (up from \$9,093 per farm and \$1.05 billion in 1993). In the Pacific

region, the share of production expenses related to labor increased and are higher than the U.S. and Mountain numbers, representing \$52,073 per farm and \$8.54 billion in total payroll (up from \$33,645 per farm and \$5.03 billion in 1993).

All of this data suggests that labor is a more important factor of production for agricultural production in the U.S., the Mountain West, and the Pacific region in 2002 than in the early 1990's. Given that there is a consensus among farm labor experts about the role that newly arrived Hispanics play in the agricultural labor force (Rural Migration News), increasing absolute and relative demand for farm labor may be connected to the region's growth in Hispanic population. Beyond production agriculture, it is also important to consider allied sectors that may also be first employers of Hispanics or transitional employers for those trying to move out of production farm jobs into less seasonal work opportunities. These are the other managers who will compete for current supplies of labor and that will be affected by any new jobs legislation for newly immigrating Hispanics.

### The Green Industry

Another industry that appears to rely on newly arrived immigrant and more established Hispanic workers is the green industry, encompassing ornamental plant production, sales, installation, landscape care, and golf courses, among other sectors ([www.anla.org](http://www.anla.org)). The 1997 Census of Agriculture showed that hired labor as a share of production expenses was highest for greenhouse and nursery production. Among ornamental production operations in the United States (19,878 firms), over \$3.5 billion in hired labor expenses to 376,194 workers were reported in 1998's Census of Horticulture. The Mountain West region represented almost \$400 million of those payrolls, or 11 percent of the national total, and 55,000 workers (or 15% of the national total). This is also a growing industry, as indicated by the 10-20 percent growth rates noted in a study of Colorado and its overview of other various states (Thilmany, et al).

Although the region reported over 55,000 green industry production jobs, those numbers grow significantly if allied service, wholesaling, and retailing sectors are added. The Mountain West states that have compiled green industry data found that:

1. Idaho reported 13,000 jobs in 1999 (compared to 3,800 in direct production);
2. Utah reported 15,000 jobs in 2000 (compared to 2,200 in direct production);
3. Washington reported 55,000 jobs (compared to 14,000 for direct production).

So, the increase in magnitude between production and allied sectors ranges from three to seven times more workers than direct production. For example, a recent study of the industry by Colorado State University included landscape design and golf courses, as well as the estimated share of cemeteries, irrigation, and garden equipment enterprises related to the landscape industry. Colorado's study found that an average of 52,000 workers were employed (compared to 6,400 in production) by about 2,000 firms in this industry, with a payroll of about \$1.2 billion dollars, a little over \$23,000 per worker. Although the current drought in some Mountain West states has had an effect on growth, this industry still represents a large and vital part of the economy, an increasingly important competitor for workers that once only viewed traditional agricultural operations as a potential workplace.

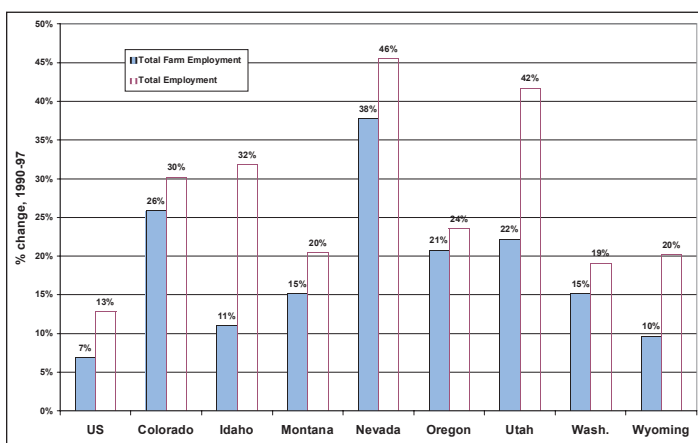
### Agribusiness Employment

Beyond agricultural production, there are several related industries that are also important agricultural employers, influence migration patterns, and may compete for workers traditionally tied to farm production jobs. For the U.S., farming and its related industries provided 22.9 million jobs, or slightly below 15 percent of total 1997 employment (Table 1). Farm and farm-related employment increased by over 3.6 million jobs between 1981 and 1997. Although the number of jobs rose, farm and farm-related employment's share of total U.S. employment declined from 17.3 to 14.9 percent during that 16-year period. Figure 3 shows that total U.S. farm employment growth between 1990 and 1997 was a little over one-half the rate of general employment growth, while the ratio of farm to total job growth was much higher in all but three of the Mountain region's states (Idaho, Utah and Wyoming). Figure 3 also reinforces the point illustrated in Figure 1: Mountain states had significantly greater employment growth than the U.S. as a whole. The relative growth of farm-related employment is especially interesting in states with high total employment growth, such as Nevada and Colorado.

Table 1. US and Mountain West 1997 Employment and Farm Employment

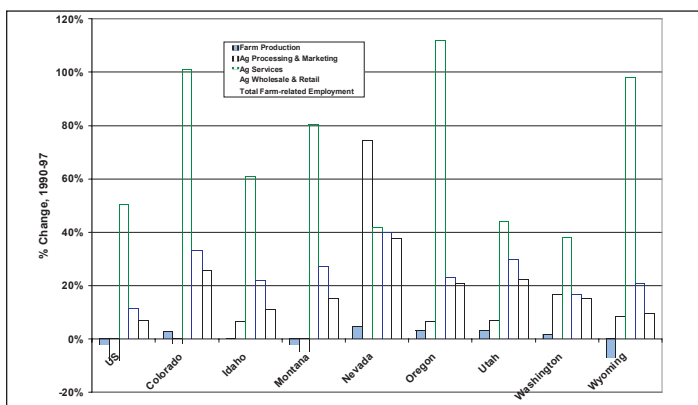
	Total 1997 Employment	Total 1997 Farm Employment
<b>US</b>	154,039,886	22,905,453
<b>Colorado</b>	2,575,294	369,270
<b>Idaho</b>	687,964	140,112
<b>Montana</b>	502,171	98,099
<b>Nevada</b>	1,040,356	108,797
<b>Oregon</b>	1,956,880	337,929
<b>Utah</b>	1,241,126	160,770
<b>Wash.</b>	3,246,159	517,962
<b>Wyoming</b>	300,562	49,805

Figure 3. Mountain Region Total and Farm Employment Growth, 1990-1997



Source: Bureau of Labor Statistics and USDA-ERS

Figure 4. Mountain Region Farm-related Employment Sector-specific changes, 1990-1997



For the U.S., most of the farm-related employment increase occurred in agricultural services, wholesale, and retail trade industries, which added almost 5 million jobs (Figure 4). Some of this gain was offset by job losses in farm production, agricultural processing and marketing, and agricultural inputs. In the Mountain West, farm production jobs actually increased

in most states, and employment in the farm-related sectors increased at a faster pace than the U.S. Comparing Figures 1, 3, and 4, farm-related employment was relatively high in high employment growth and high population growth states. Since the housing and infrastructure needs of new immigrants could be competitive with land in farms, this may seem surprising. But, another way to look at this is that growth may lead to more labor-intensive agricultural systems, including fruit and vegetable production or dairy farms. These types of enterprises have incentives to produce closer to the final consumer, and on the supply side, higher margin farm enterprises may be necessary to maintain farmland in production when potential development values on farmland increase.

Over 6.2 million farm and farm-related jobs were in non-metro counties in 1997 and these jobs accounted for about one-quarter of all non-metro employment, a larger share than for non-metro jobs in all U.S. industries. Farming and its closely related industries provided over one-half of farm and farm-related employment in non-metro counties. Agricultural wholesale and retail trade industries also remained an important source of jobs for non-metro workers, accounting for almost half of non-metro farm and farm-related employment. Although farm-related jobs are mostly perceived as rural employment, there was metro farm-related employment growth as well.

The findings from agribusiness employment trends would suggest that broader agricultural employment growth in this region, not just farm production jobs, may also fuel Hispanic growth and be impacted by any new immigrant employment legislation. More detailed county analysis cannot be completed since these data, at the disaggregate sector level, are not reported for proprietary reasons. But, these state-by-state comparisons do suggest where agribusiness employment may play a role in understanding the dynamics of Hispanic population.

### Hispanic Population Growth across Counties

The significance and growth in Hispanic population varies greatly across the counties of this region, with population change rates varying from -65 percent to 1275 percent, with an average of 102 percent between 1990 and 2000. This is even greater than the variability across Hispanic population shares

illustrated in Figure 2. It is likely that the relationship between Hispanic population growth and several other factors discussed in this paper vary across counties, so simple correlation estimates may at least suggest where the strongest relationships exist.

Nationally, it is estimated that 77 percent of farmworkers were born in Mexico, and National Agricultural Worker Survey's (NAWS) March 2000 data suggests the same level in this region. Of relevance to the new worker proposals, 45 percent of the Mountain region's farmworkers report they were working illegally in the U.S. while only 28 percent are U.S. citizens. For the U.S., 56 percent of farmworkers are migrant and data shows that a similar share of migrant workers in the region's farm workforce (although it should be noted that few have confidence in the estimates of migrant workers since they are a very transitory population) (Thilmany and Grannis).

*Table 2. Correlation Table for Hispanic, Poverty and Employment Levels and Changes, 1990-2000*

	Hispanic Growth	Hispanic Share	Ag Worker Change	Nonseasonal Ag Change	Seasonal Ag Labor
Hispanic Growth	1				
Hispanic Share	-0.0134	1			
Ag Worker Change	0.0411	0.0527	1		
Nonseasonal Ag Change	-0.0023	0.0693	0.2298	1	
Seasonal Ag Labor	0.0349	0.0804	0.9329	0.1235	1

Table 2 shows the correlation between Hispanic growth, share of Hispanic population, growth in total agricultural workers, growth in non-seasonal ag workers, and growth in seasonal ag workers by county for the Mountain West region between 1990 and 2000. Unfortunately, the farm-related employment numbers are not available on a county level so those trends are not included in this table. Given a critical value of .11 at the 95 percent confidence level, there are not significant relationships between farm employment growth and Hispanic growth, as one might expect. There are positive correlations, but they are insignificant, except for the relationship between seasonal and non-seasonal farm jobs and total ag worker change (as expected) and between seasonal and non-seasonal jobs (showing they are complementary).

The inability to accurately count migrant populations may be one reason there is no significance, but it may also suggest that a growing number of industries (construction, services) seek out

Hispanic workers to fill relatively low-paying, unskilled jobs, so that growth in farm jobs is not an important explanatory factor on Hispanic in-migration. In short, the growth in agricultural employment cannot be directly credited with the rise in Hispanic population for the Mountain West. Still, there is reason to believe that an immigrant jobs program will influence agricultural employers and how they manage labor in this region.

### Immigrant Worker Policy Developments

An overview of the recent evolution of immigrant worker and amnesty policies may illustrate the complexity of this issue. In December 2000, after the election of Presidents Fox and Bush, worker and grower representatives reached a compromise that included the major elements of the current Agricultural Job, Opportunity, Benefits, and Security Act of 2003 (AgJOBS) proposal, that is: (1) freezing the Adverse Effect Wage Rate (AEWR) for several years; (2) allowing employers to provide AgJOBS workers with a housing allowance instead of housing; and (3) granting provisional legal status to unauthorized farm workers who could prove that they did at least 100 days of farm work in the preceding 18 months. If a provisional legal farm worker did at least 360 days of farm work in the next six years, including 275 days in the first three years, she will earn immigrant status. The sponsors have attracted a diverse collection of backers to the bill, including the AFL-CIO, United Farm Workers of America, the American Farm Bureau Federation, the Agriculture Coalition for Immigration Reform (ACIR), the National Council of Agricultural Employers, and the National Council of La Raza.

The new Bush proposal, FSIR, does not provide such amnesty. AgJOBS would trade "employer-friendly" changes in the H-2A program for an "earned legalization" path to immigrant status for unauthorized farm workers (Rural Migration News). Unauthorized foreigners who did at least 100 days of farm work (an hour or more constitutes a day) in a 12 consecutive-month period between March 1, 2002 and August 31, 2003 could receive a six-year Temporary Resident Status (TRS) that permits work in the U.S. and travel in and out of the U.S. FSIR also includes a new guest worker program for what Bush says are "the jobs being generated in America's growing economy [that] American citizens are not filling."

TRS farm workers could earn a permanent immigration status by doing at least 2,060 hours or 360 days of farm work in the next six years, including at least 1,380 hours or 240 work days during the first three years following adjustment, and at least 430 hours or 75 work days during each of three 12-month periods in the six years following adjustment. Spouses and minor children of TRS workers would not be deportable (but would not be allowed to work) and could receive permanent immigrant status when the farm worker qualified for an immigrant visa. The proposed legislation puts no cap on the number of temporaries. Some reports suggested 500,000 unauthorized farm workers might qualify, others estimate 800,000, including 25 percent in livestock, which was excluded from the SAW legalization program of 1987-88.

In short, there are reasons to believe that either new farm worker and amnesty program would have both positive and negative effects on farm labor market conditions and rural communities. On the positive side, it would make some current worker populations less "unauthorized," and thus, possibly more likely to invest in professional development, community institutions and networks, and private capital (housing). In short, it may provide a more experienced, less transitory workforce to farm and agribusiness managers. However, the incentive to gain amnesty with such jobs may also bring a whole new set of workers with limited language skills and experience to farm employers and rural communities. Regardless, the dynamics of agribusiness labor markets and the rural communities they are located in are likely to be impacted.

### Conclusions

Agricultural employment was down in 2002 in the U.S. and in some parts of the Mountain West, most likely due to decreased production and revenues under severe drought conditions. Yet, this regional downturn runs counter to the general trend during the late 1990's that showed an increase in workers, wages, and employers. This, together with the growth in green industry and allied agribusiness workforces, suggests that agriculture will continue to be a major employer in this region. It is also interesting to note that wages are relatively high and increasing in the West, which would suggest either a higher quality (educated, more experience) workforce, or a tighter worker supply (which runs counter to the broader labor market).

Many believe the Hispanic population is closely tied to agricultural and related employment opportunities, and population change in the Mountain West states would support that theory. Still the correlation between farm jobs and Hispanic population growth is only insignificantly positive. Absolute numbers suggest that some of the highest Hispanic population growth is in states with higher farm-related employment as well. All of these dynamics are important to consider when debating any farm worker amnesty programs, as they will influence how short-run labor demand by agribusiness managers may influence the long-term demographics of rural areas. What still remains to be seen is whether Hispanics that gain experience and establish themselves in the workforce will remain in agriculture and rural counties, or migrate to less seasonal, better paying jobs in different industrial sectors and geographic areas of the region.

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