Studies in Industry and Employment

A Labor Market and Economic Comparison of Rural and Urban Washington





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Washington State Employment Security

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Executive Summary

Wages and income:

- Average covered wage, total personal income, and per capita income all revealed significant and widening gaps between rural and urban Washington, though there has been real growth in all three since at least the early 1980s. The widening gap was due to the much higher pace of growth in urban Washington, particularly in the past several years, which mirrors Washington's high tech run-up.
- Average hourly wage and *industry wage* data suggest that the higher rate of growth was driven by higher wage jobs in the 75th-90th percentile and that those jobs were in the services sector. That, in turn, is also highly suggestive of a computer services effect.
- *Earnings by place of work* was the one form of personal income that revealed a disparate trend between rural and urban Washington. Other forms of personal income—retirement, income maintenance, and investment-related incomes—did not.
- Inflation as measured by the *Consumer Price Index* was a relative non-factor in explaining the widening disparity. This suggests that statements about the significantly lower cost of living in rural Washington may be overstated.
- As such, the analysis of disparities between rural and urban Washington should concentrate on the *nature* or *type* of work. The data on industry wages and average hourly wages point in that direction.

Population and employment:

- Rural Washington does not suffer from massive out-migration or lack of *in-migration*. However, the age demographics of that migration may not work in its favor: rural Washington has a higher share of seniors and adolescents who have either retired from or have not yet joined the labor force.
- This has a direct bearing on the *labor force participation rate*, which is notably lower in rural Washington than it is in urban Washington.
- Furthermore, *unemployment rates* in rural Washington were much higher than they were in urban Washington. It is also important, however, to note that they have fallen to historical lows in both regions since the early 1980s.
- Nevertheless, the *employment-population ratio*, which is an indicator of an economy's capacity to absorb workers, slightly favored rural and not urban Washington, which suggests again that the issue is not the number of jobs but rather the types of jobs.
- Differences in *industry employment share* and *seasonal-cyclical-structural composition* in rural and urban Washington bear this out. Urban Washington has a much higher share of service jobs, which have a much higher average covered wage than those in rural Washington. Rural Washington also has much higher shares of seasonal and structural employment, which mean longer and more frequent episodes of dislocation than urban Washington.

Introduction

The *Two Washingtons* is not a new theme. It has had a place in our lexicon since the mid-80s when urban Washington began experiencing sharp population, employment, and wage growth while rural Washington did not. The Two Washingtons have varyingly been defined as eastern Washington versus western Washington, non-Puget Sound versus Puget Sound, non-metropolitan versus metropolitan, and now rural versus urban. However it is defined, the seeming permanence of the divide speaks clearly to the challenge facing anyone who attempts to narrow it. That is, however, something the state's current administration and legislature appear mutually committed to doing. Because the governor and legislature chose to frame economic vitality and, by extension, the state's economic development policy and program thrust, in terms of rural and urban, the Labor Market and Economic Analysis (LMEA) Branch undertook to provide an overview of the two regions using the definitions set in statute.

Background

The rural-urban comparison was promulgated by language in two bills passed by the legislature during the 1999 regular session and signed into law by Governor Locke. One was Engrossed Second Substitute Senate Bill (ESSB) 5594 "An act relating to enhancing eco-

Figure 1

Population Density Per Square Mile Washington State, April 1, 2000 Source: Office of Financial Management

Washington	87.0				
Adams	8.3	Grays Harbor	35.2	Pend Oreille	8.0
Asotin	31.9	Island	360.2	San Juan	73.8
Benton	82.2	Jefferson	14.8	Skagit	59.0
Chelan	21.4	King	789.9	Skamania	5.9
Clallam	38.0	Kitsap	572.6	Snohomish	282.6
Clark	547.6	Kittitas	14.0	Spokane	235.4
Columbia	4.8	Klickitat	10.3	Stevens	15.5
Cowlitz	83.0	Lewis	28.2	Thurston	284.9
Douglas	17.5	Lincoln	3.7	Wahkiakum	14.5
Ferry	3.3	Mason	51.0	Walla Walla	42.6
Franklin	36.4	Okanogan	7.3	Whatcom	76.6
Garfield	3.2	Pacific	23.0	Whitman	19.1
Grant	31.1	Pierce	421.2	Yakima	50.1

Rural = Bold Type

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Urban = Regular Type
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nomic vitality." The other was Engrossed Substitute House Bill (ESHB) 2260 "An act relating to tax incentives in rural counties." Both bills state in their openings that "(t) he legislature finds that while Washington's economy is currently prospering, economic growth continues to be uneven, particularly as between metropolitan and rural areas. This has created in effect two Washingtons: One afflicted by inadequate infrastructure to support and attract investment, another suffering from congestion and soaring housing prices. In order to address these problems, the legislature intends to use resources strategically to build on our state's strengths while addressing threats to our prosperity." These were known as the economic vitality initiatives and to date they have produced such things as a sales tax holdback, a health and technology worker tax credit, a Business and Occupation tax credit, and a public utility district tax credit.

There are many definitions of rural and urban. However, these bills defined *rural* as counties with population densities of less than 100 persons per square mile, and *urban* as counties with population densities of 100 or more persons per square mile. By this definition, according to the Office of Financial Management, 31 counties had population densities of fewer than 100 persons per square mile, 8 had population densities of 100 or more persons per square mile as of April 1, 2000 (*see Figures 1 and 2*).

Figure 2





One should note that these data may be revised upon release of population counts from the 2000 Census. One should further note that the 2001 Legislature will be considering bills that expand the definition of rural to include counties with a land mass of 225 square miles or less, which covers Island County. San Juan County meets this criteria, but is already defined as rural based on its population density.

The population-based urban-rural definition outlined above and the labor market-based metropolitan/ non-metropolitan definition used by Employment Security differ in that three areas—Bellingham Metropolitan Statistical Area (Whatcom County), Richland-Kennewick-Pasco Metropolitan Statistical Area (Benton and Franklin counties), and Yakima Metropolitan Statistical Area (Yakima County)—are viewed as rural by the former and urban by the latter. If the 2001 Legislature passes the expanded definition of rural, one part of the Seattle-Bellevue-Everett Principal Metropolitan Statistical Area (Island County), will be considered rural by the former, though urban by the latter.

The Indicators

There are myriad labor market and economic indicators that can be marshaled in support of a ruralurban analysis. To date, LMEA has built roughly 20 around what it believes are the broad indicators of economic vitality: population, labor markets, and income. The list is not exhaustive and will surely expand over time to include, for example, revenue and poverty data. One might also expect unique indicators to be developed to more extensively capture rural-urban dynamics. For now, however, the list of indicators includes the following:

- Population
- Net migration
- Civilian labor force
- Labor force participation rates
- Unemployment rates
- Nonagricultural employment
- Agricultural employment
- Goods-producing employment
- Services-producing employment

- Employment-population ratio
- Seasonal-cyclical-structural employment
- Occupational employment
- Average hourly wage
- Average covered wage
- Total personal income
- Per capita income
- Earnings by place of work
- Transfer payments
- Retirement-related transfer payments
- Income maintenance-related transfer payments
- Investment income

This report is not going to be an exhaustive analysis of all of these indicators. Instead, it will attempt to paint a picture using select indicators that explain why rural and urban Washington differ in terms of their economic vitality. This examination will start with wages and income because when most individuals think about the *Two Washington* phenomenon, they often do so with reference to wage and income differences that do, in fact, exist.

Average Covered Wage

Average covered wage is a derivative of the covered employment and wage data. It is calculated by dividing total covered wages paid by average covered employment. It is generated by the Employment Security Department and is available quarterly and annually for Washington and its counties. For the purposes of this report, the data were converted to constant 1999 dollars using the Implicit Price Deflator for Personal Consumption Expenditures.

Average covered wage data reveal a significant and growing disparity between rural and urban Washington over the 1981-99 period (*see Figure 3*). In 1981, the earliest observation point, the gap between rural and urban Washington was \$3,865. That gap steadily widened to \$13,916 by1999—more than three and a half times the difference in 1981. Moreover, a lot of the momentum behind that widening gap has come in the past several years. The same pattern can be seen in the annual rate of change data. From the early 1980s through the early 1990s, the pattern of annual rate changes in average covered wage moved more or less in tandem between urban and rural Washington, though the latter typically posted lower rates of growth and higher rates of decline by comparison (*see Figure 4*). It was in the latter half of the 1990s, however, that urban Washington really separated itself from the rest of the field, posting annual rate gains ranging from 5.0 percent to 7.5 percent—the largest yearly gains during the observation period. The argument that urban Washington has driven the state average covered wage gains credence when looking at annual percent change. Their respective 18-year patterns are nearly identical.

From \$30,863 in 1981, urban Washington's average covered wage posted inflation-adjusted annualized growth of 1.3 percent to reach \$38,864 in 1999. In the aggregate, this may look impressive. However, the trend really needs to be viewed in two distinct parts. Between 1981 and 1992—a period book-ended by two economic recessions—urban Washington's average covered wage stagnated to the degree that it slipped into the \$28,800-\$28,900 range. By 1993, urban Washington's average covered wage was only \$30,505. All told, that 11-year period saw urban Washington's average covered wage decline at an annual rate of 0.4 percent. The 1993-99 period, however, has seen urban Washington's average covered wage explode at an annual rate of 4.1 percent, in the process climbing from \$30,505 to \$38,864—a nominal gain of more than \$8,000. Prosperity in the state's primarily urban-based software sector is the driving force behind this up-trend.

Figure 3

Average Covered Wage (Constant 1999 Dollars) Rural and Urban Washington, 1981-1999 Source: Employment Security Department



Rural Washington's average covered wage went from \$26,997 in 1981 to \$24,948 in 1999, which translates into a declining annual rate of 0.4 percent. Like urban Washington's trend, though, rural Washington's must also be viewed in two parts. From \$26,997 in 1981, rural Washington's average covered wage fell at an annual rate of 2.1 percent, bottoming out at \$22,216 in 1990. Since then, however, it has rebounded at an annual rate of 1.3 percent on the way to reaching \$24,948 in 1999. Indeed, rural Washington's average covered wage increase of 2.4 percent in 1999 was the largest single-year gain over the observation period. To be sure, rural Washington average covered wage has yet to reclaim its 1981 level. However, the more recent trend is one of positive rather than negative annual change.

It is known from a breakdown of the last two years of data that the widening gap was largely driven by the software sector—a sector whose employment is concentrated predominantly in urban Washington. In fact, the state's average covered wage would have grown at half the rate it did if software was removed from the equation.

Average Hourly Wages

Average hourly wages are a derivative of the occupational information gathered from employers through the *Occupational Employment Statistics Survey* conducted cooperatively by the Employment Security Department and the U.S. Department of Labor, Bureau of Labor Statistics. The data are organized into seven major

Figure 4

Average Covered Wage (Real Annual Percent Change) Rural and Urban Washington, 1982-1999 Source: Employment Security Department



occupational groupings for the purposes of this report, but are also available at a more detailed five-digit Occupational Employment Statistics (OES) code level.

Average hourly wages, too, were consistently higher in urban Washington than they were in rural Washington no matter how the data were sliced—by 10th, 25th, 75th, or 90th percentiles or by mean or median. You'll note, however, that the urban-rural disparity was most prominent in the upper wage brackets.

The average hourly wage profiles for urban and rural Washington were similar in that both showed the managerial sector and the professional and technical sector with the highest median and high-low hourly wage distributions (*see Figures 5 and 6*). Likewise, both had services sectors with the lowest median and high-low hourly wage distributions.

The key difference was that urban Washington's occupational sectors had higher average hourly wages than the same sectors in rural Washington regardless of whether the focal point was the median or the high-low percentile range. Moreover, the urban-rural average hourly wage gap, which was relatively modest for the lowest paying occupations in the 10th percentile, widened significantly by the time one reached the highest paying occupations in the 90th percentile *(see Figure 7)*. This disparity was most apparent in the managerial, professional and technical, and sales sectors where the differences ran into the \$5-\$9 range in the 90th percentile. Some, though certainly not all, of this disparity might be offset by regional inflation

Figure 5

Occupational Wage Distribution Hourly Wages in Urban Washington, 1998 Source: Employment Security Department



adjustments. In 1999, this was also undoubtedly tied to the tremendous escalation in high tech wages, namely software.

Per Capita Personal Income

Per capita personal income is derived by dividing total personal income by population. It is generated by the Bureau of Economic Analysis within the U.S. Department of Commerce and is available quarterly and annually for Washington and annually for Washington counties. For the purposes of this report, the data were converted to constant 1998 dollars using the Implicit Price Deflator for Personal Consumption Expenditures.

The same picture emerges with respect to per capita income in rural and urban Washington (*see Figure 8*). From \$16,818 in 1969, urban Washington's per capita income rose at an inflation-adjusted annual rate of 2.2

Figure 6

Occupational Wage Distribution Hourly Wages in Rural Washington, 1998 Source: Employment Security Department



Figure 7 Average Hourly Wage Distribution *Rural and Urban Washington, 1998* Source: *Employment Security Department*



Figure 8 Per Capita Personal Income (Constant 1998 Dollars) *Rural and Urban Washington, 1969-1998* Source: *Bureau of Economic Analysis*



percent to \$31,385 by 1998. Rural Washington's per capita income grew at an annual rate of 1.5 percent from \$13,999 to \$21,470 over the same period. With the exception of the early 1970s, per capita income growth rates in rural Washington have fallen considerably shy of those in urban Washington (see Figure 9). This was most apparent in the mid-1970s and mid-1980s and it appears to be the case again in the late 1990s. In 1998, for example, rural Washington's 2.7 percent increase in per capita income was dwarfed by the 6.0 percent increase posted by urban Washington. As with average covered wage, an argument can be made that urban Washington has driven the state's per capita income level. Particularly striking is the nearly identical pattern of annual rates of change over the past 29 years. This relatively consistent pattern of disparate per capita income growth rates has produced a rather profound

Figure 9

Per Capita Personal Income (Real Annual Percent Change) Rural and Urban Washington, 1970-1998 Source: Bureau of Economic Analysis



gap between rural and urban Washington, similar to that seen in average covered wage.

The gap between per capita income in rural and urban Washington has, for the most part, been steadily widening over the past three decades. From \$2,820 in 1969, rural Washington managed to close the gap to \$1,140 from 1974-75 when it was roughly \$17,000 to urban Washington's \$18,000. That is as close as rural Washington's per capita income came to that in urban Washington over the 29-year period. The gap progressively widened from that point. By 1998, urban Washington's per capita income was \$9,914 higher than that in rural Washington.

Total Personal Income

Total personal income captures all types of income: wages, salaries, government transfer payments, retirement income, farm income, self-employed income, proprietors' income, interest, dividends, and rent. It is generated by the Bureau of Economic Analysis of the U.S. Department of Commerce and is available quarterly and annually for Washington and annually for Washington counties. For the purposes of this report, the data were converted to constant 1998 dollars using the Implicit Price Deflator for Personal Consumption Expenditures.

Total personal income has risen steadily in both rural and urban Washington, though the initial base and pace of growth have been much more pronounced in the latter (*see Figure 10*). From nearly \$41 billion in

Figure 10

Total Personal Income (Millions of Constant 1998 Dollars) Rural and Urban Washington, 1969-1998 Source: Bureau of Economic Analysis



1969, total personal income in urban Washington climbed more than threefold to nearly \$131 billion by 1998. By comparison, total personal income in rural Washington rose two-and-a-half fold from \$13 billion in 1969 to \$33 billion by 1998.

For urban Washington, this translated into an inflation-adjusted annual increase of 4.1 percent from 1969-98 compared to 3.3 percent for rural Washington. The actual annual rates of change were, of course, much more varied due to the cyclical ups and downs of the economy (see Figure 11). Total personal income in rural Washington posted strong gains (10 percent in 1973, 8 percent in 1978) in the early and late 1970s, followed by poor performance during the 1980s, and subsequently modest gains of 2 percent to 5 percent during the 1990s. The annual rates of increase in total personal income in urban Washington have typically operated at somewhat above those in rural Washington (with the exception of brief periods during the early 1970s and early 1990s), but have really outperformed rural Washington in the past couple of years by posting annual gains of nearly 8 percent.

Interesting as that may be, when personal income is broken down into its major parts, it is clear that earnings by place of work is the main driver of the personal income disparity between rural and urban Washington. Outside of the absolute dollar amounts, the patterns of change in the other components of personal income—retirement-related income, transfer payments, and investment income—were so close as to

Figure 11





be insignificant determinants of discrepancy between the rural and urban Washington. As a result, attention will be focused on work-related earnings.

So that readers will know what the other forms of income represent, transfer payments are any expenditure by the government for which it receives no good or service in exchange. Such payments typically involve transfers of income from one group of individuals (taxpayers) to other groups of individuals in the form of social security, income maintenance, medical benefits, unemployment benefits, and government pensions. Income maintenance-related transfer payments are comprised of supplemental security income (SSI), aid to families with dependent children (AFDC) and the program that succeeded it, temporary assistance to needy families (TANF), food stamps, and assistance for refugees, foster care, earned income tax credits, and energy assistance. Also included under income-maintenance-related transfer payments are Medicaid and payments to medical vendors who treat eligible lowincome patients. Investment income is defined as interest, dividends, and rent. Like other forms of personal income, all three are generated by the Bureau of Economic Analysis of the U.S. Department of Commerce and is available quarterly and annually for Washington and annually for Washington counties. To illustrate this point, the graphs of these forms of income are provided in *Figures 12-17*.

Earnings by Place of Work

Earning by place of work encompasses wages and salaries, other labor income, and proprietors' income. Wages and salaries includes employee compensation as well as corporate officer compensation; commissions, tips, and bonuses; voluntary employee contributions to deferred compensation plans; and receipts in kind, or pay-in-kind, that represent income. Other labor income includes payments by employers to privately administered benefit plans for their employees (98 percent), fees paid to corporate directors, and miscellaneous fees. Proprietors' income includes corporate director fees and the imputed net rental income of owneroccupants of farm dwellings. It is tracked by the Bureau of Economic Analysis of the U.S. Department of Commerce and is available quarterly and annually for

Figure 12 Retirement-Related Transfer Payments (Incl. Medicare) *Rural and Urban Washington, 1969-1998* Source: *Bureau of Economic Analysis*





Retirement-Related Transfer Payments (Incl. Medicare) Rural and Urban Washington, 1970-1998 Source: Bureau of Economic Analysis



Figure 14

Income Maint.-Related Transfer Payments (Incl. Medicaid) Rural and Urban Washington, 1969-1998 Source: Bureau of Economic Analysis



Figure 15





Figure 16





Figure 17 Investment Income *Rural and Urban Washington, 1970-1998* Source: *Bureau of Economic Analysis*



Washington and annually for Washington counties. For the purposes of this report, the data were converted to constant 1998 dollars using the Implicit Price Deflator for Personal Consumption Expenditures.

Rural Washington's earnings by place of work were dwarfed by those in urban Washington—and the disparity is widening (*see Figure 18*). Between 1969-1998, in inflation-adjusted terms, work-related earnings in rural Washington doubled from \$10.1 billion to \$20.3 billion. In urban Washington, they nearly tripled from \$33.2 billion to \$97.8 billion. Viewed another way, work-related earnings in urban Washington soared from roughly three times that in rural Washington in 1969 to nearly five times as much by 1998. This widening gap is also captured in the annualized growth rate in work-related earnings over the 29-year period: 2.4 percent for rural Washington.

For the most part, urban Washington has experienced higher annual growth and less severe annual declines in earnings by place of work than has rural Washington (*see Figure 19*). The one period of exception was in the early 1970s when the Boeing Bust severely hindered urban Washington's work-related earnings. It was during that decade that rural Washington held its own vis-à-vis urban Washington despite the already obvious gap. The double-dip recessions of the early 1980s, however, hit rural Washington much more severely than they did urban Washington, particularly with respect to work-related earnings. While urban Washington quickly recovered, rural Washington's recovery was much less pronounced. As a result, the disparity between rural and urban Washington worsened during the latter half of the 1980s and in the latter half of the 1990s.

The Inflation Effect

One variable consistently raised with respect to wage and income gaps is cost of living. Many believe rural Washington has a lower cost of living and that that accounts for the gap. To test this, the U.S. Consumer Price Index for All Urban Consumers (CPI-U) for City Sizes A and D were used as proxies (*see Figure 20*). Size A reflects cities with populations of 1,500,000 or more, which actually fit only one urban county. Size B/C was









actually a better fit for urban Washington counties, but there were only two years of time series data, rendering the category of limited usefulness. Size D is population of less than 50,000, which fit two-thirds of the rural counties. By this measure, inflation in rural areas ran lower than that in urban areas the past several years, but that has not always been the case. In fact, since the mid-1980s when the Two Washington's theme emerged, rural areas had periods of higher inflation. For the most part, though, they have moved in concert and are certainly not so disparate as to account for the increasingly wider wage and income gap between rural and urban Washington.

The Seattle-Tacoma-Bremerton CPI-U encompasses all urban counties but Clark and Spokane, which some would argue makes it a better fit for urban Washington

Figure 20 U.S. Consumer Price Index for all Urban Customers *City Size A, City Size D, Seattle-Tacoma-Bremerton* Source: *U.S. Bureau of Labor Statistics*



than City Size A or B/C. The point is well taken, but must be weighed against the fact that the Seattle-Tacoma-Bremerton CPI-U is greatly—perhaps unduly—influenced by the Seattle area, particularly with respect to the housing component. Be that as it may, when held up against the CPI-U for City Sizes A and D, it did run higher than the two during the 1990s, but not overwhelmingly, and certainly not enough to account for the wage and income gap between rural and urban Washington.

Average Covered Wage by Industry

To what, then, can this disparity be attributed? Data on total covered wages paid and average covered wage by industry provide significant clues. Turning to total covered wages paid in 1999, the data show a relatively similar distribution across industries with the exception of services (see Figure 21). Services accounted for 40 percent of the total wages paid in urban Washington compared to only 25 percent in rural Washington. A greater share of total wages paid in rural Washington were in goods-producing sectors like manufacturing, construction, mining, and agriculture, forestry, and fishing. The unusual disparity in the services sector is very suggestive of the high-tech, particularly softwarerelated, run-up in urban Washington. With respect to average covered wage data, there are distinct sectoral disparities with the exception perhaps of mining, which is a very small sector (*see Figure 22*). However, it is particularly evident in services—which again includes the software industry-but also finance-insurance-real





Figure 22 Average Covered Wage by Industry

Rural and Urban Washington, 1999 Source: Employment Security Department



estate, manufacturing, trade, and even agriculture, forestry, and fishing.

Key Wage and Income Findings

From this discussion emerge the following wage and income findings:

• Average covered wage, total personal income, and per capita income all revealed significant and widening gaps between rural and urban Washington, though there has been real growth in all three since at least the early 1980s. The widening gap was due to the much higher pace of growth in urban Washington, particularly in the past several years, which mirrors Washington's high-tech run-up. That run-up was much more pronounced on the wage and income side than it was on the employment side, though the latter was notable as well. • Average hourly wage and industry wage data suggest that the higher rate of growth was driven by higher wage jobs in the 75th to 90th percentile, and that those jobs were in the services sector. That, in turn, is again highly suggestive of a computer services effect.

• Earnings by place of work was the one form of personal income that revealed a disparate trend between rural and urban Washington. Other forms of personal income did not—those others being retirement, income maintenance, and investment related incomes.

• Inflation as measured by the Consumer Price Index was a relative non-factor in explaining the widening disparity. This suggests that statements about the lower cost of living in rural Washington may be overstated. Housing is less expensive, but less extensive and efficient distribution systems for other goods and services offset that advantage.

• As such, our analysis of disparities between rural and urban Washington concentrated on the nature or type of work. The data on industry wages and average hourly wages point in that direction.

Population and Net Migration

Resident population is an estimate of all persons in a defined geographic area as of April 1st. It is estimated by the Office of Financial Management and is available annually for Washington and its counties. Resident population can subsequently be viewed in terms of net natural increase and net migration. Net natural increase represents the net sum of births and deaths in an area, while net migration represents the net change in population after accounting for those who move in or out of an area. Both provide some insight into the forces behind broader changes in resident population.

Resident population is obviously greater in urban rather than rural Washington. That gets to the very definition of urban and rural. From just under 2.9 million in 1960, Washington's resident population climbed at a 1.8 percent annual rate to pass 5.8 million in 2000. Urban Washington commanded the lion's share of that growth as its resident population marched from just under 2 million in 1960 to nearly 4.3 million in 2000 (*see Figure 23*). By comparison, rural Washington's resident population went from 900,000 to more than 1.5 million over the same period.

Figure 23 Resident Population *Rural and Urban Washington, 1960-2000* Source: *Office of Financial Management*







While both urban and rural Washington displayed similar patterns of resident population growth, the former typically saw higher annual rates of growth (*see Figure 24*). This accounted for the 2.0 percent annual growth posted by urban Washington over the 1960-2000 period compared to 1.4 percent by rural Washington. There were, however, exceptions as rural Washington population growth matched or outpaced that for urban Washington during much of the 1970s and then outpaced urban Washington again during the mid-1990s. The underlying factor in both periods was contraction in the state's aerospace industry which, when combined with the indirect impacts, curtailed resident population growth in urban Washington.

There is no question that urban Washington's resident population growth has dwarfed that in rural Washington over the past four decades. Washington's urban-rural population disparity was already apparent in 1960 when there were 69 urban residents for every 31 rural residents. Forty years later, the disparity is even greater with 73 urban residents for every 27 rural residents. Further, while rural Washington as a region has not lost population, three of the counties that make up the region do, in fact, have a smaller populace today than they did in 1960. Additionally, more than half of the counties that make up rural Washington lost population in 1999.

Natural increase data show that both rural and urban Washington experienced net increases as births outnumbered deaths from 1990-99. There was a difference in degree, though, as 34 percent of rural Washington's resident population gains came from natural increase compared to 41 percent in urban Washington. A closer look reveals that six rural counties (Clallam, Columbia, Garfield, Jefferson, Pacific, and Wahkiakum) experienced net natural declines in population.

The net migration numbers, though, paint an interesting picture. With respect to net migration, rural Washington posted half the level of net migration seen in urban Washington over the 1990-99 period (*see Figure 25*). That is no surprise. However, it is instructive to note that not one of the counties that constitute rural Washington experienced net outmigration over that period—a picture often painted with respect to rural counties. This is not to suggest that a county or two hasn't posted out-migration from time to time, but on the whole, that has not been the case. Moreover, 65 percent of the resident population gain in rural Washington came from net migration over the 1990-99 period compared to 60 percent in urban Washington (*see Figure 26*). This, too, is not the prevalent thinking when it comes to this issue. Though unavailable, it would be illuminating to see the demographics of the migrants. For example, are the migrants in urban Washington younger couples who are likely to have families, thus boosting natural increase as well? Are the migrants in rural Washington older, retirees who are not likely to affect natural increase? After all, the kind of migrants an area attracts is as important as the number.







Figure 26 Share of Total Population Change *Rural and Urban Washington, 1990-1999* Source: *Office of Financial Management*



Population by Age Group

Population by age data generated by the Office of Financial Management provide at least some insight into these questions (*see Figure 27*). If one assumes that the 20-64 year old age group is the principal working age cohort and that those "19 and younger" and "65 and older" are non-working age cohorts, urban Washington had a decided advantage to the tune of 5 to 6 percentage points over rural Washington in terms of its working age population in 1998. This roughly translates into labor force availability.

Labor Force Participation Rate

The difference in labor force availability in rural and urban Washington has a direct bearing on their respec-

Figure 27 Working/Non-Working Age as Share of Population *Rural and Urban Washington, 1998* Source: *Office of Financial Management*



tive labor force participation rates. Labor force participation rates were clearly lower in rural Washington than in urban Washington by six percentage points in 1999—the widest the gap has been during the 30-year observation period (*see Figure 28*). This leads us right back to age dynamics and rural Washington's currently higher proportion of seniors, teens, and adolescents. This was not always the case, though, as the labor force participation rates in rural Washington were actually higher than those in urban Washington during the 1970s and then roughly the same during the early 1980s. It was really after the recession of the early 1980s that the urban Washington's labor force participation rates rose above those in rural Washington, from which point they widened progressively.

Figure 28

Labor Force Participation Rate Rural and Urban Washington, 1970-1999 Source: Employment Security Department



Resident Civilian Labor Force

Resident civilian labor force is defined as all people 16 years of age and older who are either employed (excluding those serving in the armed forces) or unemployed and actively looking for work. It is estimated by the Employment Security Department and is available on a monthly and annual basis for Washington and its counties.

From just over one million in 1970, urban Washington's labor force grew at an annual rate of 2.9 percent to 2.3 million by 1999 (*see Figure 29*). By comparison, rural Washington's labor force also rose, though from a smaller initial base and at a lesser annual rate of 2.2 percent to go from 400,000 in 1970 to 755,000 in 1999. One of the implications of the higher annual rate of growth in urban Washington's labor force is that it has climbed from two-and-a-half times to three times that in rural Washington over the period. While this may seem to be a mere statistical footnote, it draws attention to the much greater pool of available labor in urban Washington compared to rural Washington. More than half of the counties comprising rural Washington experienced either no change or contraction in their labor forces in 1999. In terms of percent change, the labor forces in both urban and rural Washington were affected by cyclical swings, with the former experiencing higher peaks and shallower troughs (*see Figure 30*). It is clear, though, that the rate

Figure 29

Resident Civilian Labor Force *Rural and Urban Washington, 1970-1999* Source: *Employment Security Department*



Figure 30 Resident Civilian Labor Force, Percent Change *Rural and Urban Washington, 1971-1999* Source: *Employment Security Department*



of labor force growth has eased over the past several years. In urban Washington, for example, labor force growth was only 1.4 percent in 1999—the third consecutive year of declining growth rates. Rural Washington's 0.9 percent labor force growth in 1999 marked the fifth consecutive year of progressively lower growth rates. This is consistent with predicted labor supply constraints precipitated by an aging populace and, by extension, labor force.

Unemployment Rates

Unemployment rates are a derivative of the resident civilian labor force numbers in that they are calculated by taking the resident civilian labor force and dividing by the resident civilian unemployed. Like resident civilian labor force data, unemployment rates are generated by the Employment Security Department and are available both monthly and annually for Washington and its counties.

The 29-year comparison of unemployment rates in rural and urban Washington reveals two notable observations. First, jobless rates have been falling in both rural and urban Washington since the early 1980s, though they are clearly higher for the former as compared to the latter (*see Figure 31*). Second, through the better part of the 1970s, unemployment rates in urban and rural Washington, though distinct, did not reveal much of a gap. That emerged, really, as the 1980s unfolded. It was during that period that gaps of threeand-a-half to four-and-a-half percentage points became the norm. Many would point to the severe adverse





impacts visited upon rural Washington during the double dip recessions of the early 1980s, a period during which many natural resource-based sectors underwent tremendous restructuring.

Rural Washington's 7.3 percent unemployment rate in 1999, for example, is somewhat deceptive since the jobless rates among the counties that make up rural Washington range from a low of 1.8 percent in Whitman County to a high of 11.6 percent in Columbia County. To add a little perspective, the rural region's mode is 5.6 percent and the median is 7.4 percent. Urban Washington's 3.9 percent unemployment rate was more reflective of the range of its member counties with King County fixing the low end at 3.2 percent and Spokane County marking the high end at 5.2 percent. The urban region's median was 4.7 percent while its mode was 3.9 percent (same as the arithmetic average).

Nonagricultural Employment

The various takes on employment in rural and urban Washington—whether nonfarm employment, covered employment, or resident employment—show pretty much the same trends: urban Washington with a much larger employment base than rural Washington, though with both showing roughly the same rates of change over time. As such, this discussion of nonagricultural employment and its sub-components, goods-producing and services-producing employment, will be used as proxies for the other measures of total employment.

Nonagricultural wage and salary employment includes all full-time and part-time wage and salary workers receiving pay during the pay period including the 12th of the month. Not included are proprietors, selfemployed, armed forces personnel, and private household employees. The data are generated by the Employment Security Department and are available monthly and annually for Washington and its metropolitan areas, and annually only for non-metropolitan counties.

The number of nonfarm jobs in both rural and urban Washington rose from 1970-99 (*see Figure 32*). They did so, however, at decidedly different paces. Rural Washington nearly saw its nonfarm base double from 311,160 in 1970 to 551,050 by 1999, an annual rate of 2.0 percent. Meanwhile, urban Washington, despite starting from a much larger base, more than doubled its nonfarm base from 801,000 in 1970 to 2,082,000 by 1999, which translated into an annual rate of 3.3 percent. The disparate rates of growth between rural and urban Washington has had the result of causing urban Washington to go from having two-and-a-half times as many nonfarm jobs as rural Washington in 1970 to nearly four times as many by 1999.

By and large, the pattern of annual rate changes in nonfarm employment in rural and urban Washington were not that different, save a severe 6 percent dip in rural Washington in 1982 (*see Figure 33*). Both patterns followed typically expected cyclical swings in the economy. The biggest, and deciding difference, was in the magnitude of the rates of change. The annual rates of change in nonfarm employment in rural Washington clearly lagged behind those for urban Washington during the late 1970s,

Figure 32

Nonagricultural Wage and Salary Employment Rural and Urban Washington, 1970-1999 Source: Employment Security Department



Figure 33 Nonagricultural Wage and Salary Employment, % Change *Rural and Urban Washington, 1971-1999* Source: *Employment Security Department*



most of the 1980s, and the late 1990s. It is instructive to note that rural Washington outpaced urban Washington in their respective rates of nonfarm job growth during the first half of the 1970s and, most notably, during the first half of the 1990s. Nevertheless, during the most recent years covering the late 1990s, the growth in urban Washington's nonfarm employment has ranged from 2.0 percent to 4.5 percent. Conversely, those in rural Washington, though positive, have not broken 2.4 percent.

Goods-Producing and Services-Producing Employment

Goods-producing and services-producing employment are both components of nonagricultural wage and salary employment. Goods-producing employment is the sum of manufacturing, construction, and mining employment, while services-producing employment is the sum of trade, services, transportation and public utilities, and finance, insurance, and real estate employment.

Goods-producing employment increased in both rural and urban Washington over the 1970-99 period. It grew considerably faster and from a higher initial base in urban Washington, though, expanding at a 2.2 percent annual rate from 217,000 in 1970 to 409,000 by 1999. By comparison, goods-producing employment in rural Washington climbed at a lesser 1.3 percent annual rate from 77,000 to 111,000 over the same period. In the process, goods-producing employment in urban Washington went from nearly three times higher to nearly four times higher than that in rural Washing-

Figure 34 Goods-Producing Jobs as Share of Nonfarm Employment *Rural and Urban Washington, 1970-1999* Source: *Employment Security Department*



ton. Though their absolute numbers may be growing, goods-producing employment has been falling as a share of total nonagricultural employment in both rural and urban Washington (*see Figure 34*). From a period high of 30 percent in 1973, goods-producing employment's share of total nonfarm employment was down to 20 percent by 1999. The pattern in urban Washington was very similar with its share falling from 27 percent in 1970 to 20 percent by 1999.

Services-producing employment in both rural and urban Washington have demonstrated relatively continuous upward growth over the 1970-99 period. In urban Washington, that has meant growing at an annual rate of 3.7 percent and nearly tripling from 584,000 in 1970 to more than 1.6 million by 1999. In rural Washington, services-producing employment rose at an annual rate of 2.8 percent on the way to more than doubling from 202,000 in 1970 to 444,000 by 1999. Rural and urban Washington both saw their services-producing employment climb significantly as a share of total nonagricultural employment (see *Figure 35)*. From their respective shares of 72 percent and 73 percent in 1970, rural and urban Washington alike saw their share of services-producing employment rise to 80 percent by 1999. The paths were not identical, however, as urban Washington took a much more erratic path with its aerospace sector and employment cycle greatly influencing the share of goods-producing employment over time and, by extension, that of the services-producing sector as well. Rural Washington, on the other hand, displayed

Figure 35 Services-Producing Jobs as Share of Nonfarm Employment *Rural and Urban Washington, 1970-1999* Source: *Employment Security Department*



a much more erratic pattern in the first half of the 1970s, after which its share climbed fairly consistently through 1999.

Agricultural Employment

Agricultural employment is a count of wage and salary employees as well as owners and unpaid family members. The data are not adjusted for multiple jobholders (those who work for more than one employer during the reference period). It is estimated by the Employment Security Department and is available annually for Washington and its counties.

Agricultural employment was heavily concentrated in rural Washington to the tune of 90 percent over the 1990-99 period with urban Washington picking up the balance. In 1999, this translated into 83,120 workers in rural Washington and 9,660 in urban Washington (see *Figure 36*). Though all rural counties had agricultural employment, it was dominated by those with laborintensive tree fruits and vegetables as their principal farm commodities—Yakima, Chelan-Douglas, Benton-Franklin, Grant, and Okanogan. Urban Washington has agricultural employment as well, and it has held relatively constant at 10,000 (plus or minus 500) over the nine year observation period. Two-fifths of urban agricultural employment is in the Seattle-Bellevue-Everett PMSA (King, Snohomish, and Island counties) followed by Pierce and Thurston counties—not Spokane County as one might have expected (wheat harvesting is not a very labor-intensive agricultural activity). It is generally accepted that agriculture,

Figure 36 Agricultural Employment *Rural and Urban Washington, 1990-1999* Source: *Employment Security Department*



Figure 37

Agricultural Employment, Percent Change Rural and Urban Washington, 1991-1999 Source: Employment Security Department



particularly tree fruit activity, operates on two-year growth cycles beyond those caused by weather or market conditions. This appears quite clearly in the cyclical pattern displayed over the 1990-99 period, particularly in rural Washington. It also appears that the convergence of the downside of this cycle and shrinking export activity (which translated into a smaller apple crop and lower apple exports) caused agricultural employment to fall 4.7 percent in 1999 (*see Figure 37*). This was a more significant decline than has historically been the case, and it was apparent in urban Washington's agricultural sector as well.

Employment-Population Ratio

More critical to understanding the dichotomy between rural and urban Washington is the employment-population ratio (*see Figure 38*). Like the labor

Figure 38 Employment Population Ratio *Rural and Urban Washington, 1980, 1990, and 1999* Source: *Employment Security Department*



force participation rate, it speaks to the capacity of the economy to absorb workers. In this case, one can see that the employment-population ratio has risen over time in both rural and urban Washington. Moreover, rural Washington actually has a slightly higher ratio than urban Washington over the past 20 years. This is not the impression most folks have of the rural-urban landscape. It suggests that whatever disadvantages rural Washington has compared to urban Washington, a dearth of jobs is not one, which undercuts a long-held belief with respect to this issue.

Moreover, if one goes back to the population by age data described earlier and calculates an employmentpopulation ratio based on the 20-64 year old working age population rather than total population, rural Washington's ratio climbs even higher, which suggests even greater capacity to absorb prospective workers.

That having been said, if the number of jobs is not at the heart of the issue, what is? This again suggests that the disparity in the type or nature of jobs in rural and urban Washington is the key to understanding the economic gap. This would, by extension, encompass any mismatches between the skill sets of existing workers and prospective jobs.

Industry Employment Share

At a glance, the industry compositions of rural and urban Washington appear more or less similar. It is in the less similar aspects, however, that the greatest revelations lie. The biggest differences are in agricul-

Figure 39 Share of Total Covered Employment by Industry *Rural and Urban Washington, 1999* Source: *Employment Security Department*



ture-forestry-fishing, which is dominated by rural Washington, and services, which is dominated by urban Washington (*see Figure 39*). If you remember our discussion of average wage by industry, you'll recall that A-F-F was among the lowest paying while services was among the highest paying. A-F-F is no surprise, but services may be. Bear in mind, though, that software is a key high-wage component of services.

Occupational Employment

Occupational employment estimates are based on information gathered from employers through the *Occupational Employment Statistics Survey* conducted cooperatively by the Employment Security Department and the U.S. Department of Labor, Bureau of Labor Statistics. The data are organized into seven major occupational groupings for the purposes of this report, but are also available at a more detailed five-digit Occupational Employment Statistics (OES) code level.

In terms of sheer numbers, urban Washington towers over rural Washington in every major occupational category except agriculture, forestry, and fishing (*see Figure 40*). Among managerial, professiontechnical, sales, and administrative support occupations, urban Washington's base is more than four times greater than that in rural Washington. In services and production, construction, repair, and operation occupations, urban Washington holds a three-fold advantage. Agriculture, forestry, and fishing is the only occupational category where rural Washington has a numbers





advantage, and even that is only slightly higher than that for urban Washington.

The occupational compositions of rural and urban Washington are not that disparate (*see Figure 41*). Professional and technical occupations and production, construction, repair, and operation occupations dominate both, followed by services and administrative support and sales and managerial. Agriculture, forestry, and fishing bring up the rear in both. The major distinction is the slightly more pronounced presence of what might generally be goods-producing or "bluecollar" occupations in rural Washington compared to services-producing or "white-collar" occupations in urban Washington.

Figure 41

Occupational Employment Shares *Rural and Urban Washington, 1998* Source: *Employment Security Department*



Seasonal, Cyclical, and Structural Employment

Seasonality, cyclicality, and structural maturity are important because workers in industries designated as such are viewed as being at risk of longer and more frequent episodes of unemployment. Seasonality reflects regular monthly swings in economic activity that produces high employment or unemployment depending on the time of year (e.g., agriculture, tourism, etc.). Cyclicality reflects shifts in the business cycle that generate high employment or unemployment depending on where an economy is in the cycle (e.g., recession, expansion). Structural maturity reflects long-range upward shifts in productivity that result in unemployment as affected firms introduce new equipment, processes, and technology to heighten their competitive positions and overall productivity, and replace jobs as those gains are realized.

An industry was classified as seasonal if its highest to lowest monthly employment varied 18.9 percent or more from its annual average. Cyclicality was acknowledged if an industry's highest to lowest annual average employment varied 24 percent or more from the midpoint trend line from 1982-90 (the last complete business cycle). Structural industries were identified as Type 1 if employment decreased 10 percent or more from the pre-recession peak in 1990 or Type 2 if the loss was less than 10 percent from the 1990 peak.

Figure 42

Seasonal, Cyclical, and Structural Employment Rural and Urban Washington, 1999 Source: Employment Security Department



These data are generated by the Employment Security Department and are available annually for Washington and its counties.

Rural Washington and urban Washington posted relatively similar shares of cyclical employment in 1999 at 12 percent to 15 percent, respectively (*see Figure* 42). It was in the seasonal and structural employment components, however, that the two revealed sharp distinctions. Seasonal employment in rural Washington was at 28 percent compared to 16 percent in urban Washington. Likewise, structural employment in rural Washington was at 23 percent compared to 15 percent in urban Washington. By virtue of having greater shares of seasonal and structural employment, rural Washington arguably has a greater tendency toward longer and more frequent episodes of dislocation and unemployment compared to urban Washington.

Perhaps more important is how the shares of seasonal, cyclical, and structural employment have changed over time. A look at these characteristics in rural and urban Washington in 1988 and 1999 reveals the following observations. Seasonal employment shares did not change much as rural Washington posted the same share (28 percent) in 1988 and 1998 while urban Washington was relatively unchanged (15 percent to 16) percent). In terms of cyclical employment, rural Washington's share was relatively unchanged (11 percent to 12 percent) while urban Washington's share was much lower (23 percent to 15 percent). As for structural employment, rural Washington's share was considerably higher in 1999 (16 percent to 23 percent) while urban Washington's was slightly lower (17 percent to 15 percent). On a comparative basis, the fact that rural Washington grew more structural while urban Washington grew less cyclical over the past decade also suggests that the former became more vulnerable to longer and more frequent episodes of dislocation and unemployment while the latter became less susceptible.

Key Population and Employment Findings

From this discussion emerge the following population and employment findings:

• Rural Washington does not suffer from massive outmigration or lack of in-migration. However, the age demographics of that migration may not work in its favor. Case in point: rural Washington has a higher share of seniors and adolescents who have either retired from or have not yet joined the labor force.

• This has a direct bearing on the labor force participation rate, which is notably lower in rural Washington than it is in urban Washington.

• Furthermore, unemployment rates in rural Washington were much higher than they were in urban Washington. It is also important, however, to note that they have fallen to historical lows in both regions since the early 1980s.

• Nevertheless, the employment-population ratio, which is an indicator of an economy's capacity to absorb workers, slightly favored rural and not urban Washington, which suggests again that the issue is not the number of jobs but rather the types of jobs.

• Differences in industry employment share, occupational employment share, and seasonal-cyclicalstructural composition in rural and urban Washington bear this out. Urban Washington has a much higher share of service employment that, as mentioned earlier, has a much higher average covered wage than service jobs in rural Washington. Rural Washington has much higher shares of both seasonal and structural employment, which suggest a greater tendency toward longer and more severe episodes of dislocation than in urban Washington.

Summary

The data profiled in this report confirm what many already suspected anecdotally—that rural and urban Washington do, in fact, measure up differently on any number of labor market and economic indicators, though in some cases contrary to conventional thinking. In general terms, rural Washington does not display the same degree of economic vitality as urban Washington. There are a number of reasons for this, including the principal one—disparate industrial compositions and the wages attached to those industries.

Also important, however, is the fact that the data also confirm that rural and urban Washington are not two infinitely distinct economies. They are both part of a state economy that is, in turn, part of an even larger national economy. They respond similarly, for example, to cyclical ups and downs. As such, a comparison of labor market and economic data related to rural and urban Washington reveals two economies that nevertheless operate largely in sync with one another. Both, for example, showed real gains in employment, wages, and income and declines in unemployment rates, though to different degrees.

All of this having been said, while it is important to respect the "rural" and "urban" designations set forth in law, it is equally important to realize that such broad categories mask differences inherent in each of the component counties. This is particularly evident, for example, when one looks at rural counties in eastern versus rural counties in western Washington. Even the county-level analysis from which the rural and urban Washington data was compiled is arguably too general. Here, one might cite the differences between eastern and western King or Pierce counties. Beyond population estimates, though, sub-county data is not routinely available or accessible (due to confidentiality provisions). That should not detract, however, from the value of these data (however general they may be) in program evaluation, particularly with respect to programs with statewide application. If state programs cannot jumpstart rural Washington as a whole, that will show up in aggregate data like this.

From a policy perspective, there is a clear value in having consistent data series that establish quantitative baselines for long-term measurement. All of the data series profiled in this report are regularly available, accessible, and routinely updated at the county level, let alone the rural and urban regional level. The rapid migration toward accountability vis-à-vis performance measurements and balanced scorecards will surely underscore the importance of these prospective indicators, as well as precipitate the development of others.