HIGHER EDUCATION & REGIONAL PROSPERITY
The story behind Portland-metro’s income decline
Introduction

When the Value of Jobs Coalition released its first report in December 2010, one of our goals was to communicate to policy-makers and the public about the region’s startling decline in per capita income relative to the U.S. metro average, and the connection between this decline and our state and region's struggle to provide quality public services. The release of that report left us wondering why our region's income level has gone from above average to below average and what we can do to reverse that trend.

Since that report, we have looked at the roles of manufacturing jobs, the traded sector, industrial land availability and international trade in our region's economic health. While those reports revealed important findings about what makes our regional economy tick, we were still far from uncovering why Portland-metro has experienced this relative decline in income.

The recent availability of data related to college degrees and earnings sheds new light on this question and gives us a better understanding of why our region now has below average per capita income compared to the U.S. metro average. And the answer surprised us: The group that appears to be the biggest driver of this trend is our college-educated workers, who work less and earn less, creating a significant income gap.

This report puts a finer point on the relationship between higher education and economic growth. For decades, our coalition members have understood the critical connection between an educated workforce and economic growth. This report, however, reveals that we need to be more deliberate and thoughtful about the type of degrees our students are earning and how those degrees translate to higher earnings.

We cannot simply say that growing or attracting college-educated workers is sufficient. We must also focus on growing and attracting workers with degrees that lead to stronger earnings and a greater contribution to the region's overall economic vitality.

Finally, while this report reveals some important trends about the hours worked and the earnings made, it does not indicate whether the lower hours and earnings are the result of a lack of higher-paying/time-intensive jobs available or the result of workers choosing to not work in those higher-paying jobs (i.e., are they making a lifestyle choice?). In other words, does our below average per capita income exist because there is not a demand for these workers? Or is it because we do not have a supply of workers who want these jobs? In all probability, it's some of both.

While some may find the debate over the demand or supply question more interesting, this report focuses on what the data tell us about the make-up of our college-educated workers. What they study and the fields they enter affect not only their own earning power but also the overall financial health of our region. Oregon is an income-tax-dependent state. The more income our region and state can generate, the more money we will have to invest in schools, roads and public safety, creating a good quality of life for our region's families.

So we should review this data with this question in mind: What changes should our region make to improve wages and income, and therefore quality of life, for our families?

About this report

The data and analysis in this report were compiled by ECONorthwest for the Value of Jobs Coalition which includes the Portland Business Alliance, Associated Oregon Industries, Greater Portland, Inc., Oregon Business Association, Oregon Business Council and the Port of Portland. This report was written by the Portland Business Alliance and reviewed by ECONorthwest. It is one of a number of studies authored by the Value of Jobs Coalition examining the region's current and historical economic performance. The objectives of the reports are to identify key factors impacting employment, wages and incomes; highlight areas where the Portland-metro economy under-performs or over-performs relative to various benchmarks; and begin a conversation with public- and private-sector leaders to define strategies to spur economic growth.

Portland-metro in this report refers to the Metropolitan Statistical Areas of Portland-Vancouver-Hillsboro, OR-WA MSA. The other metro regions in this study are based on the Metropolitan Statistical Areas used by the U.S. Census Bureau.
An analysis of Portland-metro’s income gap

The Portland-metro region has experienced weak income growth over the past 15 years. Adjusted for inflation, Portland-metro's per capita personal income was actually lower in 2011 than it was in 2000 ($41,302 in 2011 compared to $42,847 in 2000).

While Portland-metro's personal income per capita has been stagnant since the late 1990s, other metro areas have grown, which explains Portland-metro's relative decline (Figure 1). Between 1996 and 2011, Portland-metro's per capita income went from 4 percent above the U.S. metro average to 4 percent below.

These facts raise two important questions: Why is there a downward trend in Portland-metro's relative per capita income? And why has it settled to its current level? In other words, why did it fall and why does it remain where it is?

BY THE NUMBERS:

10%. The percentage less in annual earnings between Portland-metro’s college-educated workers and the U.S. metro average.

$2.7 billion. The amount of additional annual earnings generated if Portland-metro’s college-educated workers earned the same amount as the U.S. metro average.

$110 million. The amount of additional funds available to K-12 schools in Oregon if Portland-metro’s college-educated workers earned the same amount as the U.S. metro average, which could fund more than 1,200 teachers.

270. The rank of Portland-metro's 25- to 39-year-old, white, college-educated males in the number of annual hours worked out of 284 U.S. metros.

6%. The percentage less of white, prime-age, college-educated males with business degrees in Portland-metro compared to the U.S. metro average.

$42,218. The amount less in annual earnings made by Portland-metro lawyers compared to the U.S. metro average.

A relative decline

For example, if Portland-metro's personal income per capita increases by 1 percent in a given year that would be an absolute gain. If other metro areas increased by 5 percent that same year, then Portland-metro would have experienced a 4 percent relative decline.

Figure 1. The decline in Portland metro’s personal per capita income, 1996-2011

Source: Bureau of Economic Analysis.
Earnings: The key to understanding Portland-metro’s income gap

Personal income per capita has three main components:
- Earnings per capita
- Dividends, interest, and rent per capita
- Transfer payments per capita (e.g., Social Security income)

Earnings per capita accounts for about three-quarters of Portland-metro’s downward trend relative to other metros, and about two-thirds of the difference between Portland-metro’s current level of personal income per capita and the higher metro average. Therefore, the key to understanding Portland-metro’s low personal income per capita is figuring out what happened to earnings per capita.¹

Two factors could explain a metro area’s below-average earnings per capita: workers earning less per job than average, and a smaller than average share of the population in the workforce. In Portland-metro’s case, relatively low earnings are due entirely to workers earning less per job compared to the metro average, and this gap continues to grow. Portland-metro actually has a larger-than-average share of its population in the workforce, which pulls up the relative level of earnings, but this advantage is diminishing.

Earnings are strongly tied to educational attainment, so to understand both the relatively low level and downward trend in earnings, this report looks more closely at Portland-metro’s educational attainment and examines residents’ educational and occupational pursuits. In all these factors, Portland-metro differs from the metro average in ways that have significant impacts on individual and regional earnings.

The connection between educational attainment and earnings

Between 2000 and 2011, Portland-metro workers without a college degree saw a small decline in earnings relative to other metro areas (falling from 4 percent above the metro average to 2 percent above), which amounts to annual earnings of a few hundred dollars over the U.S. metro average. During the same period, the share of this group in Portland-metro’s total population declined from 40 percent to 35 percent, putting it on par with the U.S. metro average, which also declined slightly. These two factors help explain the downward trend in earnings per capita, but not the lower-than-average level.

¹ In 1997, Portland-metro earnings per capita were $1,457 (in 2011 dollars) more than the U.S. metro average; dividend, interest, and rent per capita were $937 more than the U.S. metro average, and transfers per capita were $723 below the U.S. metro average. In 2011, Portland-metro’s earnings per capita were $1,251 (in 2011 dollars) below the U.S. metro average; dividend, interest, and rent per capita were $22 more than the U.S. metro average, and transfers per capita were $638 below the U.S. metro average. Below-average transfer payments account for the remaining difference in the level of per capita personal income, and declining dividends, interest, and rent account for the remaining difference in the trend.
Together, these factors impact the entire region’s personal income per capita and, to a large degree, explain why Portland-metro lags behind its peers across the U.S.

**Portland-metro college graduates earn less**

Throughout the U.S., income is strongly tied to educational attainment. As a group, college graduates earn more than their peers without college degrees. However, as noted previously, Portland-metro’s college graduates see a smaller premium for their degrees, earning 10 percent less than college graduates elsewhere.

The relatively lower earnings among Portland-metro’s college graduates explain a substantial share of Portland-metro’s below average personal income level. In fact, if Portland-metro’s college-educated workers had earnings equal to the U.S. metro average, Portland-metro’s aggregate earnings would increase by more than **$2.7 billion**, and Portland-metro’s overall personal income per capita would be within 1.5 percent of the U.S. metro average.²

Such an increase could generate about $110 million for Oregon’s K-12 school operations and more than $430 million in state and local taxes and fees.

To get a better understanding of Portland-metro’s lower level of personal income per capita, this analysis looks at trends within Portland-metro’s college-educated workforce to determine if the same earnings gap exists for all college-educated workers, or if it is more pronounced for any sub-set of college graduates.

**The biggest income gap: White, college-educated men**

*Figure 3* shows the income gaps for Portland-metro workers and their subgroups. By far, the largest income gap is associated with college-educated workers, and then with white, college-educated workers. Within white, college-educated graduates, males have a bigger gap than their female counterparts. In fact, “prime-age,” white college-educated males are the biggest contributor to the earnings gap, accounting for **$1.25 billion** of the **$2.83 billion** total earnings gap.

Because they are the largest contributor to the regional income gap, the remainder of this report focuses on factors affecting the earnings of Portland-metro’s white, college-educated white, college-educated males (although, clearly, the region must focus on correcting the income gaps associated with all categories of workers). Another reason to look at this subgroup in greater depth is that the characteristics of the white, college-educated male subgroup remain relatively consistent among U.S. metro areas. As a result, there is a consistent basis for comparing Portland-metro’s performance to other metro areas.

² This calculation assumes everything else remains constant. It is possible, though, that other values would change with the average wages of college graduates. It is possible that rising incomes would increase the amount the region earned in non-wage benefits (which count toward the Bureau of Economic Analysis’ measures of earnings and personal income).

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*Figure 3. Portion of Portland-metro’s earnings gap attributable to demographic category*

In labor economics, prime-age for workers is defined as 25-54 years old. This analysis breaks down Portland-metro’s white, college-educated males further into two age groups: the younger group, aged from 25 to 39, who have graduated from college and are available for full-time employment; and the older group, aged from 40 to 54, who have valuable experience but are not yet scaling back hours, as workers over 55 tend to do. This division identifies differences across age subgroups that reveal important trends.
Fewer hours worked

HOURS PER WEEK
Portland-metro’s white, college-educated males report working fewer hours per week than their peers in other metro areas (see Figure 4). In 2010, Portland-metro’s 25- to 39-year-old white, college-educated males reported that they usually work 42 hours per week, compared to an average of 45 hours per week in other metro areas. Portland-metro’s 40- to 54-year-old subgroup reported that they usually work 45 hours per week, compared to 46 hours in other metro areas.

The gap in hours worked per week has grown over time. In 1980 and 1990, Portland-metro’s white, college-educated males were on par with their peers in other metro areas. However, by 2000, Portland-metro’s white, college-educated males reported working fewer hours per week. This gap grew over the past decade for the younger subgroup but narrowed slightly for the older subgroup.

WEEKS PER YEAR
Portland-metro’s younger and older white, college-educated males are also less likely to work a full year than their peers elsewhere. Across all metro areas in 2010, 85 percent of the younger subgroup worked between 50 and 52 weeks per year, compared to 79 percent in the Portland-metro area. The difference is smaller for the older subgroup, with 89 percent in all metro areas working between 50 and 52 weeks per year, compared to 86 percent in Portland-metro. These differences have remained relatively consistent since 1990.

Why this report focuses on prime-age, white, college-educated males

To help simplify this analysis, the report follows a common practice in labor economics to focus on prime-age males, defined as males aged 25-54. By restricting the analysis to prime-age males, the report is focused on the group most likely to be in the labor force, and avoids differences that may arise from variations in student populations, retirees, or women with children across geographic areas. Race has a significant impact on personal income per capita, and Portland-metro has a larger-than-average share of whites in its population compared to other U.S. metro areas. So, to correct for this factor, the analysis was further narrowed to look more closely at white males.

Prime-age, white, college-educated males comprise 33 percent of Portland-metro’s college-educated labor force and account for 41 percent of all the earnings collected by Portland-metro’s college-educated workers, giving a large, statistically robust group to analyze.

Narrowing the focus to this subgroup does not change the broader conclusions and implications of this analysis, specifically the need to create more robust job opportunities for ALL residents of the Portland-metro region, improving wages and incomes overall. Instead, it allows readers to more quickly digest the salient points without being diverted by questions about differences in core demographics across geographic areas.

Readers interested in results for all college graduates or other major subgroups can find them at www.valueofjobs.com.

Figure 4. Portland-metro’s white, college-educated males are working fewer hours than their peers, especially the younger group

ANNUAL HOURS

Combined, fewer hours per week and fewer weeks per year mean that Portland-metro’s white, college-educated males work fewer total hours per year. As shown in Figure 5, Portland-metro’s younger white, college-educated males averaged 1,916 hours in 2010—nearly 200 hours less than the 2,100 averaged by their peers in other metro areas. Portland-metro’s older group worked more hours than their younger counterparts, averaging 2,124 hours per year. However, they still worked fewer hours than five of the six comparison regions (Sacramento was slightly lower and Seattle is only slightly higher). Portland-metro’s older white, college-educated males also ranked near the bottom in total hours worked—235 out of 284 U.S. metro areas.

These findings indicate that on average prime-age, white, college-educated males in Portland-metro work fewer hours than their peers elsewhere, but they do not explain why. A number of factors can play a role in how many hours a person works, including personal lifestyle choices and external economic factors such as job availability. Whatever the reasons, the consequences for Portland-metro’s economy are the same—less income for workers and fewer tax dollars for public services.

Lower earnings per hour

The other factor in the earnings equation is hourly wages. Again, Portland-metro’s prime-age, white, college-educated males are at a disadvantage compared to their peers elsewhere. In 2010, the average hourly wage for Portland-metro’s younger subgroup was approximately $2.50 less than in other metro areas ($31.32 versus $33.82), and the average hourly wage for Portland-metro’s older subgroup was $3.65 less ($46.44 versus $50.09).  

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Figure 5. Portland-metro’s white, college-educated males rank near the bottom compared to other metros in total hours worked, 2010

<table>
<thead>
<tr>
<th>Younger subgroup (25-39 years old)</th>
<th>Older subgroup (40-54 years old)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati</td>
<td>2,117</td>
</tr>
<tr>
<td>St. Louis</td>
<td>2,106</td>
</tr>
<tr>
<td>Seattle</td>
<td>2,074</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>2,072</td>
</tr>
<tr>
<td>Sacramento</td>
<td>2,067</td>
</tr>
<tr>
<td>Denver</td>
<td>2,049</td>
</tr>
<tr>
<td>Portland</td>
<td>1,916</td>
</tr>
</tbody>
</table>

Source: American Community Survey 2009-2011.

Portland-metro’s white, college-educated males also worked fewer hours per year than their peers in the other regions Portland-metro was compared to in previous Value of Jobs reports (Seattle, Denver, Minneapolis, Cincinnati, St. Louis and Sacramento). In fact, Portland-metro’s 25- to 39-year-old white, college-educated males rank near the bottom for hours worked—270 out of the 284 U.S. metro areas.

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The American Community Survey reports a range for weeks worked. As such, the report authors only calculated a range for annual hours worked for all prime-age, white, college-educated males. In this section, the report uses the lower bound estimate for hours worked; however, the results and conclusions would not change if the report used the upper bound estimate. Detailed labor studies have shown that workers tend to overestimate the number of hours per week they work, but they do so consistently. There is no evidence that Portland-metro’s workers are more or less accurate in their reporting than others, so the trends and the differences between groups we observe are accurate even if the actual number of hours per week may be overstated.
While these differences have fluctuated somewhat over time, average hourly earnings for Portland-metro’s prime-age, white, college-educated males have been consistently below the U.S. metro average since 1980, as shown in Figure 6.

**Figure 6.** Portland-metro’s white, college-educated males have consistently earned lower hourly wages than their peers in other metros

These differences describe an important source of Portland-metro’s lower earnings, but they do not fully explain why Portland-metro’s younger and older white, college-educated males earn less per hour. There are undoubtedly a number of factors, potentially including the type of jobs available and the educational background workers bring to their careers.

**Fewer business majors, more humanities degrees**

Portland-metro’s population has a relatively large share of prime-age, white, college-educated males compared to other metros, especially for the younger sub-group (see Figure 7). Their educational attainment also differs from other metro areas; Portland-metro’s prime-age, white, college-educated workers are more likely to hold only a Bachelor’s degree, while workers in other metros are more likely to hold an advanced degree. This results in less overall earning power for the region. While an important finding, it still does not explain all of the differences in income.

**Figure 7.** Difference in composition of Portland-metro’s prime-age, white, college-educated male population compared to U.S. metro average

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Difference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-39 year olds</td>
<td>+3%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>+3%</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>-1%</td>
</tr>
<tr>
<td>Doctorate degree</td>
<td>-1%</td>
</tr>
<tr>
<td>Professional degree</td>
<td>-2%</td>
</tr>
</tbody>
</table>

Source: American Community Survey 2009-2011.

**Figure 8.** College majors of Portland-metro’s white, college-educated males compared to U.S. metro average, average annual earnings in Portland-metro by college major and earnings gap with U.S. metro average

<table>
<thead>
<tr>
<th>College Major</th>
<th>Portland Metro Average</th>
<th>Gap with U.S. Metro Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>$56,285</td>
<td>$3,069</td>
</tr>
<tr>
<td>Education</td>
<td>$89,065</td>
<td>$8,549</td>
</tr>
<tr>
<td>Health</td>
<td>$79,053</td>
<td>$1,483</td>
</tr>
<tr>
<td>Other</td>
<td>$66,570</td>
<td>$9,669</td>
</tr>
<tr>
<td>STEM</td>
<td>$90,850</td>
<td>$7,233</td>
</tr>
<tr>
<td>Social Science</td>
<td>$70,902</td>
<td>$26,424</td>
</tr>
<tr>
<td>Humanities</td>
<td>$54,840</td>
<td>$18,247</td>
</tr>
</tbody>
</table>

A more significant factor could be the kind of degrees earned by Portland-metro's prime-age, white, college-educated males as shown in Figure 8. Portland-metro's cohort is more likely to have chosen a major that leads to lower-paying jobs, which has a lifelong impact on earnings. For example, Portland-metro has more humanities majors, who earn an average of $54,840 per year, and social science majors, who earn an average of $70,902 per year. At the same time, Portland-metro has fewer business majors, who tend to be higher earners, averaging $89,065 per year.

Further amplifying the earnings gap, Portland-metro's humanities majors earn about $18,247 less than their counterparts elsewhere (a 33 percent gap), and Portland-metro's social science majors earn $26,424 less than social science majors elsewhere (a 37 percent gap). In fact, in Portland-metro, every college major earns less than the U.S. metro average. Undoubtedly, a number of factors contribute to this outcome, including educational qualifications, hours worked, hourly pay and the availability of jobs that pay higher salaries.

**Fewer higher-paying occupations more lower-paying occupations,**

A similar pattern emerges with occupational choices. Figure 9 shows occupations in which the share of prime-age, white, college-educated males differs from the U.S. metro average by more than 1 percent. While Portland-metro has more than the average share of relatively higher-paying fields such as architecture and engineering, it also has a larger share of workers in the lower-paying fields of arts, design, entertainment and media.

![Figure 9. More Portland-metro prime-age, white college-educated males work in lower-paying occupations and earn less in those occupations.](image)

On the other hand, Portland-metro has a smaller than average share of three of the highest paying occupations: management, legal services, and business operations and finance. Furthermore, for these three occupations, Portland-metro has among the largest earnings gaps compared to other metros. The legal services occupations in Portland-metro pay an average of $42,706 less per year than the U.S. metro average, business operations/finance occupations pay $19,226 less, and management occupations pay $11,241 less.

Finally, Portland-metro's prime-age, white, college-educated males are more likely to have moved here from other states, despite the lower earning potential. Only 32 percent of Portland-metro's college graduates were born in Oregon, while nationally an average of 46 percent of college graduates are native to their respective metro areas. Given the lower-than-average wages they face, Portland-metro's college graduates may have non-financial reasons for choosing to locate here.

Ultimately, differences in majors, occupations and education beyond college can explain about 15 percent of the income differences between Portland-metro and other regions. Portland-metro's prime-age, white, male college graduates work substantially fewer hours and earn lower hourly wages for nearly all college majors and occupational categories. Combined, these two factors of Portland-metro's prime-age, white, college-educated male workforce account for an earnings level that is **$1.25 billion** per year less than it would be if Portland-metro performed at the U.S. metro average.
Conclusion: Attracting college-educated workers is not enough

In recent years, the trend in economic development has been more about place than policy. The feel and look of a metro area has been asserted to be at the center of what communities should be doing to attract the college-educated workers who will catalyze business and economic growth. And the Portland-metro area has been successful in creating a distinctive feel and look that has attracted new, college-educated residents from across the country.

The findings of this report suggest, however, that merely educating or attracting a supply of college-educated workers, while important, is not enough to maintain a robust economy in our region. The large gap between Portland-metro and its peers in the number of hours worked and the lower earning per hour show that there may be a disconnect between the kind of college-educated workers we are producing and attracting and the available jobs and income levels.

We need to do more to retain and attract employers who offer the family-wage jobs that can support our workers. As a region, we need to be focusing on what makes a difference in growing an economy: A strong manufacturing industry supported by a domestic and international trade network; a reasonable tax structure and regulatory environment; a supply of market-ready land for development; and a trained and educated workforce.

A more robust economy supported by these elements is a strategy for growing higher-income jobs for all workers. And at a time when our city, county and state governments are cutting budgets for basic services, it is clear that our region needs a healthier economy to improve our quality of life.

As a business community, we will continue our efforts to move policy in the core areas listed above. And it is clear from these findings that our number one policy priority – education – needs to remain at the top of the list. We will continue our work to make education redesign in Oregon a reality, including achieving the goal of more Oregon residents with post-secondary degrees. These report findings show, however, that we must be deliberate about how we achieve that goal.

The intent of this report is not to disparage humanities degrees, because all college degrees are valuable and generally lead to higher incomes. But the $2.7 billion earnings gap for college graduates, clearly shows that increasing the number of workers with business, management and technical (STEM) degrees must be a central part of the education discussion if our long-term goal is to improve wages and incomes. We must also improve our region’s ability to translate creative endeavors into marketable products, to recruit and retain talented managers, and to support student exposure to business careers.

Finally, we must ensure that we are supporting a business environment that will foster the creation of quality jobs that will support our region’s workers and their families over a lifetime.
Thank you to our funding partners.

A number of companies and organizations have contributed to the funding of this report and the Value of Jobs initiative, including:

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- The Greenbrier Companies
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- Key Bank
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The Value of Jobs Coalition is based on the premise that in order to have a prosperous, healthy Portland region with a good quality of life, we need more private-sector jobs. The coalition began with an economic study in the fall of 2010, which uncovered troubling economic data about the Portland-metro region. A number of other studies have followed that highlight the region’s economic opportunities and challenges. Find out more at: www.valueofjobs.com.

For more information about this report or other Value of Jobs studies, go online to www.valueofjobs.com.

- 2012 Check-up on the Portland-Region’s Economic Health
- Portland-Metro’s Manufacturing Sector study
- Land Availability: Limited Options study
- Portland-Metro’s Traded Sector study
- 2011 Check-up on the Portland-Region’s Economic Health
- International Trade study
- 2010 Check-up on the Portland-Region’s Economic Health