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The Job Gap in Pennsylvania: Are There Enough Living- Wage Jobs?

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EXECUTIVE SUMMARY

Many Pennsylvanians today believe that anyone who looks hard enough can find a “living-wage” job—a job that supports a family at a minimal but adequate standard of living. This report shows that this belief is wrong. Even with unemployment near its lowest level in a quarter century, there is a shortage of jobs in Pennsylvania and a severe shortage of living-wage jobs. These shortages are especially acute in the Philadelphia metropolitan area. Work requirements and time limits on benefits imposed as part of welfare reform will continue to increase competition for living-wage jobs, making the shortages of such jobs more severe.

For the entire state of Pennsylvania and for four major geographic regions, this report shows

- how much a living wage is, based on what it costs to cover a basic needs budget (which includes rent, food, child care, transportation, medical care, miscellaneous expenses, and taxes),
- how many Pennsylvania workers now have living-wage jobs,
- how many living-wage job openings exist per year,
- how many living-wage job-seekers there are per year, and
- how many people are competing for each living-wage job opening.

The report uses living-wage estimates for three different kinds of families: a one-adult family with one infant and one

preschooler, a one-adult family with one school-age child and one teenager, and a two-adult family with one infant and one preschooler in which both parents work. In the rest of this Executive Summary we report how many jobs and job openings in each geographic area pay a living wage high enough to cover a basic needs budget for a one-adult family with one school-age child and one teenager. The body of the report contains figures for the other two family types.

In Pennsylvania as a whole:

A living wage varies by region and family type but is always higher than the official federal poverty level.

- 57 percent of all *currently occupied jobs* pay enough to cover a basic needs budget for a family of one adult, one school-age child, and one teenager.
- A slightly smaller share of *job openings*, 53 percent, pay enough to cover a basic needs budget for such a family.
- Using a conservative estimate of the number of people who are competing for living-wage jobs, there are at least 4.4 job-seekers for every open job that pays a living wage high enough to support a family of one adult, one school-age child, and one teenager.
- There are at least 2.3 job-seekers for every open job regardless of wage.

In the Philadelphia metropolitan area, including counties in both Pennsylvania and New Jersey:

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- A living wage for a family of one adult, one school-age child, and one teenager is \$12.29 per hour or \$25,566 per year (in 1998 dollars), higher than in any other region of the state.
- 52 percent of all jobs currently held by residents of the entire metropolitan Philadelphia region, but only 44 percent of jobs held by residents of the City of Philadelphia, pay a living wage high enough to support a family of one adult, one school-age child, and one teenager. These percentages are lower than those for any other region of the state.
- 49 percent of job openings pay enough to support a family of one adult, one school-age child, and one teenager. This percentage is lower than that for any other region of the state.
- There are at least 6.6 living-wage job-seekers for every open job that pays enough to support a family of one adult, one school-age child, and one teenager.
- There are at least 3.2 living-wage job-seekers for every open job regardless of wage.
- By any definition, the shortages of jobs and of living-wage jobs are greater than in any other region of the state. Even though wages in this region are the highest in the state, they are not high enough to cover the region's high cost of living. More so than families elsewhere in Pennsylvania, Philadelphia-area families struggle to make enough to cover a basic needs budget.

In the Pittsburgh metropolitan area, including some counties outside Allegheny with a relatively low cost of living:

- A living wage for a family of one adult, one school-age child, and one teenager is \$9.33 per hour or \$19,407 per year (in 1998 dollars).
- 61 percent of all jobs currently held by residents of the region and 61 percent of jobs held by residents of the City of Pittsburgh pay enough to support such a family.
- 55 percent of job openings pay enough to support such a family.
- Using a conservative estimate of the number of people who are competing for living-wage jobs, there are at least 4.8 job-seekers for every open job that pays enough to support such a family.
- There are at least 2.6 job-seekers for every open job regardless of wage.

In metropolitan southern Pennsylvania, including the Harrisburg-Lebanon-Carlisle, York, Lancaster, Reading, and Allentown-Bethlehem-Easton metropolitan areas:

- A living wage for a family of one adult, one school-age child, and one teenager is \$10.21 per hour or \$21,232 per year.
- 59 percent of all jobs currently held by residents of the region pay enough to support such a family.
- 54 percent of job openings pay enough to support such a family.

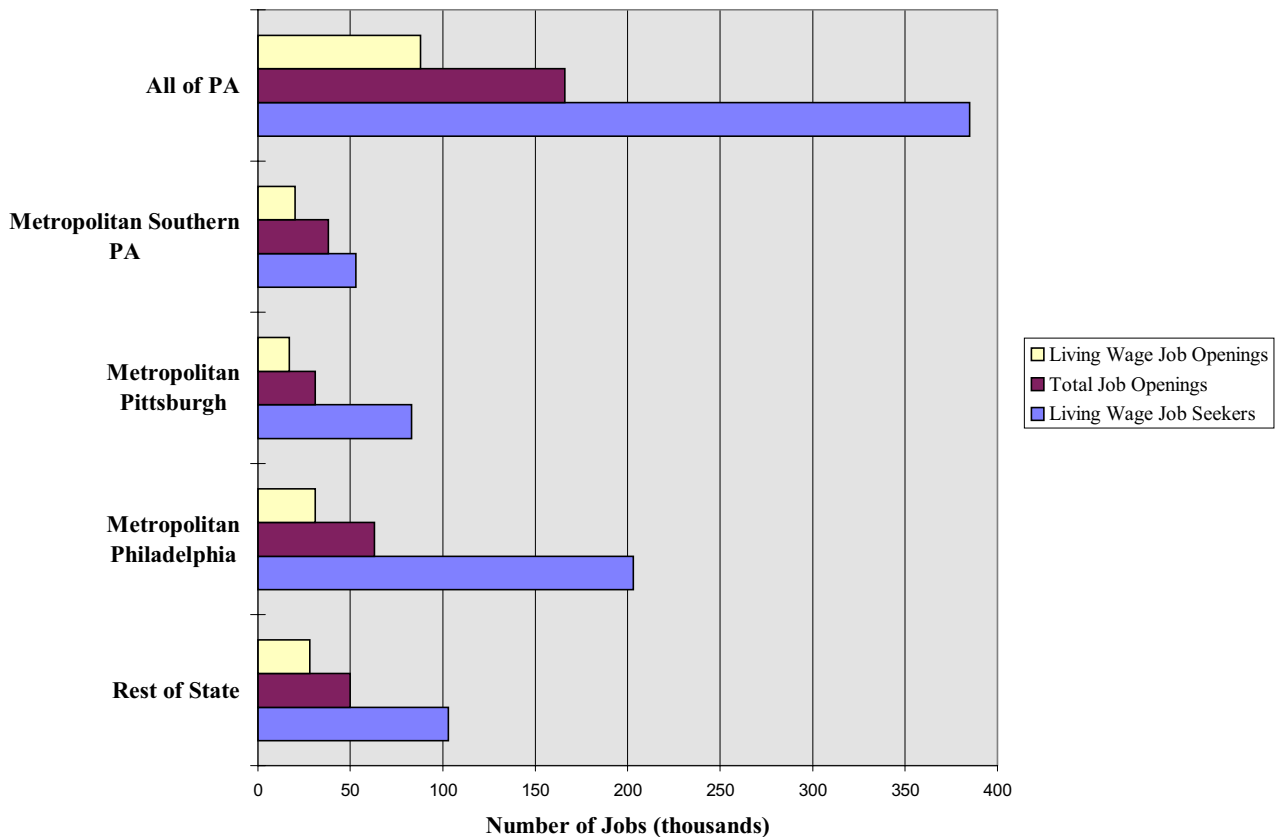
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- Using a conservative estimate of the number of people who are competing for living-wage jobs, there are at least 2.6 job-seekers for every open job that pays enough to support such a family.
- There are at least 1.4 job-seekers for every open job regardless of wage.
- By any definition, the shortages of jobs and of living-wage jobs are smaller than in any other region of the state but are still substantial.

In Pennsylvania’s smaller metropolitan areas and nonmetropolitan areas:

- A living wage for a family of one adult, one school-age child, and one teenager is \$8.83 per hour or \$18,361 per year, lower than in any other region of the state.
- 59 percent of all jobs currently held by residents of the region pay enough to support such a family.
- 54 percent of job openings pay enough to support such a family.

Annual Living-Wage Job-Seekers, Total Job Openings, and Living-Wage Job Openings in Pennsylvania



- Using a conservative estimate of the number of people who are competing for living-wage jobs, there are at least 3.7 job-seekers for every open job that pays enough to support such a family.
- There are at least 2.0 job-seekers for every open job regardless of wage.

The shortage of living-wage jobs is a bigger problem for less educated workers than for Pennsylvanians as a whole. The vast majority of managerial and professional occupations, which account for about 39 percent of living-wage job openings in Pennsylvania, are unreachable for workers

with a high school diploma or less (using a living wage high enough to support a family of one adult, one school-age child, and one teenager). So are many craft and technical jobs.

For those coming off welfare, the implications of this report are bleak. These people have very little chance of landing a job that pays well enough to cover a minimally adequate basic needs budget. Until we put in place policies to increase the number of living-wage jobs, the promise that welfare reform will lead to self-sufficiency will remain hollow.

THE JOB GAP IN PENNSYLVANIA

With the economy entering its ninth straight year of uninterrupted growth and the unemployment rate near its lowest level in a quarter-century, few people in Pennsylvania or elsewhere in the United States are worried about a shortage of jobs. Many believe that all who want to work can get jobs that will enable them to meet at least the basic needs of their families. Pennsylvania's recent welfare reforms, with their work requirements and time limits, are based on the idea that welfare recipients who look for jobs will find them and, by working, achieve self-sufficiency that gives their children a minimal but adequate standard of living.

But are there really enough jobs that pay a basic, family-sustaining "living wage"? And will Pennsylvanians without high levels of education, a group that includes most welfare recipients, be able get those jobs? This report answers these questions. For the state as a whole and for four major geographic regions, it shows

- how much a living wage is for different types of families,
- how many Pennsylvania workers now have living-wage jobs,
- how many living-wage job openings exist per year,
- how many living-wage job-seekers there are per year, and
- how many people are competing for each living-wage job opening.

The report also addresses the living-wage employment prospects of job-seekers with a high school diploma or less.

What is a Living Wage?

A living wage is the amount of money that a job must pay to enable the job-holder's family to be self-sufficient—to cover the cost of basic material needs without relying on public or private assistance. It provides a standard of living that is adequate but not luxurious or even comfortable. It allows a family little opportunity to save, whether for a house, a car, other consumer durables, or post-secondary education for either adults or children. Unlike the official poverty level, which is the same for all families of a given type everywhere in the United States, a living wage depends on family size and composition and on the actual costs of basic necessities where the family lives.

This report assumes that a living wage is equal to the "self-sufficiency standard" that the Women's Association for Women's Alternatives, a non-profit organization, has developed for every county in Pennsylvania.¹ The self-sufficiency standard includes the following costs.

- **Housing**, measured by the U.S. Department of Housing and Urban Development's "Fair Market Rents" for every metropolitan area and non-metropolitan county. The Fair Market Rent for a geographic area is the rent for a dwelling that is more expensive than 40 percent of all rental units in the area and less expensive than 60 percent. (Because many middle class and affluent families own their own homes, people who live in the least expensive rental units are usually

very poor. It is assumed that the least expensive 40 percent of rental units do not meet minimum standards of decency.) The dwelling size that is minimally adequate for a family depends on the numbers of adults and children in the family.

- **Food**, measured by the U.S. Department of Agriculture's "Low-Cost Food Plan."
- **Child Care**, measured by the cost of moderate-quality child care as determined by the state's market survey of child care costs.²
- **Transportation**, measured in Philadelphia and Pittsburgh by the cost of using public transportation to commute to work and elsewhere by the cost of each working adult using an eight-year-old car to commute to work and make one additional trip per week for shopping and other errands. The cost of buying a car is not included.
- **Medical Care**, measured by the average employee's share of the cost of an employer-provided health plan plus out-of-pocket expenses. It is assumed that each adult who works full-time has employer-provided health insurance. Because many low-wage employers do not provide health insurance, this assumption means that the true cost of health care for many low-wage workers is substantially understated.
- **Miscellaneous expenses** (such as clothing, household items, and telephone service), assumed to equal 10 percent of all the above costs.
- **Taxes** on all the above, including federal, state, and local income, sales, and payroll taxes, with allowance for the federal earned income tax credit and child care tax credit.³

This report uses monthly living-wage estimates, in 1998 dollars (i.e., the buying power of wages at 1998 prices), for four major regions of Pennsylvania: metropolitan Philadelphia, metropolitan Pittsburgh, metropolitan southern Pennsylvania (the combined metropolitan areas of Harrisburg-Lebanon-Carlisle, York, Lancaster, Reading, and Allentown-Bethlehem-Easton), and the rest of the state (including the smaller metropolitan counties and all nonmetropolitan counties). To convert the county-specific self-sufficiency standards to living wages for each of these four regions, we compute a weighted average of the self-sufficiency standards in the counties within each region. (Each county's self-sufficiency standard is weighted by that county's November 1998 share of the state's civilian labor force.⁴) Although all our calculations were done in terms of monthly wages, we report the annual and full-time hourly equivalents of those wages because most readers will find it easier to think in terms of annual or hourly wages.⁵

The report uses living-wage estimates for three different kinds of families: a one-adult family with one infant and one preschooler, a one-adult family with one school-age child and one teenager, and a two-adult family with one infant and one preschooler in which both parents work. Most families receiving welfare benefits are one-parent families. In many non-welfare working families both parents work.

Table 1 shows the annual and full-time hourly living wages for each family type in each region of Pennsylvania. The table also shows the 1998 official U.S. poverty level (expressed in terms of annual and full-time hourly wages) for each family type in each

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region. The living wages are always much higher than the official poverty levels. In each region, the living wage is highest for the one-adult family with an infant and a preschooler. It is lowest for the two-adult family in which both parents work. The living-wage is substantially higher in the Philadelphia area than elsewhere in the state and substantially lower in the small metropolitan/nonmetropolitan areas than elsewhere.

Who Earns a Living Wage in Pennsylvania?

Using the Bureau of Labor Statistics' Current Population Survey, we can determine who earns a living wage, as defined above, by region, race, sex, educational attainment, and occupation. We combine data from three consecutive years of the survey, 1995-1997, in order to have a sample large enough to make reliable estimates. We convert all wages to 1998 dollars using the CPI-U-X1, a consumer price index published by the Bureau of Labor Statistics.⁶

Table 2 shows the share of jobs, in each region and in the state as a whole, that pay at least a living wage, for each of our three family types. Statewide, substantial majorities of jobs pay enough to support a two adult/two child family with both parents working or a single adult/school-age child/preschooler family. However, only a little over one-third of all jobs pay enough to support a single adult with an infant and a preschooler. Living-wage job shares are highest in metropolitan Pittsburgh and metropolitan southern Pennsylvania and are substantially lower in metropolitan Philadelphia than in the other three major regions. The City of Philadelphia has much lower proportions of living-wage jobs than metropolitan Philadelphia as a whole, while the City of Pittsburgh has proportions of living-wage jobs similar to the Pittsburgh metropolitan area as a whole.

Table 1
Annual and Full-Time Hourly Living Wages in Pennsylvania (in 1998 dollars)

	1 Adult + 1 Infant + 1 Preschooler	1 Adult + 1 School- age + 1 Teenager	2 Adults (Both Working) + 1 Infant + 1 Pre- schooler, Per Adult
Metropolitan Philadelphia*	\$37,147/yr \$17.86/hr	\$25,566/yr \$12.29/hr	\$20,680/yr \$9.94/hr
Metropolitan Pittsburgh**	\$31,276/yr \$15.04/hr	\$19,407/yr \$9.33/hr	\$17,703/yr \$8.51/hour
Metropolitan Southern PA***	\$30,577/yr \$14.70/hr	\$21,232/yr \$10.21/hr	\$17,467/yr \$8.40/hr
Rest of State	\$26,973/yr \$12.97/hr	\$18,361/yr \$8.83/hr	\$16,079/yr \$7.73/hr
Official U.S. Poverty Level****	\$13,133/yr \$6.31/hr	\$13,133/yr \$6.31/hr	\$8,265/yr \$3.97/hr

*Philadelphia, Bucks, Chester, Delaware, and Montgomery Counties.

**Allegheny, Beaver, Butler, Fayette, Washington, and Westmoreland Counties.

***Dauphin, Cumberland, Lebanon, Perry, York, Lancaster, Berks, Lehigh, Northampton, and Carbon Counties.

****The 1998 official U.S. poverty level for a family of one adult and two children was \$13,133 per year. The poverty level for a family of two adults and two children was \$16,530 per year, which is equivalent to \$8,265 per adult if both parents work.

Source: KRC, based on data from Diana Pearce and Jennifer Brooks, *The Self-Sufficiency Standard for Pennsylvania* (Swarthmore: Women's Association for Women's Alternatives, 1997), and U.S. Bureau of the Census World Wide Web site <www.census.gov>.

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	1 Adult + 1 Infant + 1 Preschooler	1 Adult + 1 School- age + 1 Teenager	2 Adults (Both Working) + 1 Infant + 1 Preschooler, Per Adult
Metropolitan Philadelphia	29%	52%	65%
City of Philadelphia	21%	44%	57%
Metropolitan Pittsburgh	37%	61%	66%
City of Pittsburgh	33%	61%	66%
Metropolitan Southern PA	38%	59%	69%
Rest of State	36%	59%	66%
ALL OF PA	35%	57%	66%

Source: KRC, based on Current Population Survey (CPS) data. Regions defined as in Table 1. If the New Jersey portion of the Philadelphia metropolitan area were included as part of metropolitan Philadelphia, living-wage percentages for the region would differ from those shown in this table by no more than one percentage point.

Table 3 shows the shares of Pennsylvania workers, by race and sex, who earn at least a living wage. (The living wage varies by region, as above, but the table presents only results for the entire state.) Men are more likely to earn a living wage than women, and whites are more likely to earn a living wage than African Americans. More than half of African Americans earn enough to support a two-adult/two-child family with both parents working, but fewer than half of African Americans earn a living wage by either of the other definitions. The same is true of women.

	1 Adult + 1 Infant + 1 Preschooler	1 Adult + 1 School- age + 1 Teenager	2 Adults (Both Working) + 1 Infant + 1 Preschooler, Per Adult
WHITE	36%	60%	68%
White Men	50%	74%	80%
White Women	22%	44%	54%
BLACK	20%	40%	54%
Black Men	25%	47%	57%
Black Women	16%	35%	51%
MEN	48%	71%	78%
WOMEN	21%	43%	54%

Source: KRC, based on CPS data.

Table 4 shows the shares of Pennsylvania workers, by educational attainment, who earn at least a living wage. People with more schooling are more likely to earn a living wage, regardless of how a living wage is defined. Large majorities of people with postgraduate schooling earn a living wage, but fewer than half of people without a high school diploma earn a living wage, regardless of definition used. Among high school graduates, a clear majority earn enough to support a two-adult/two-child family with both parents working and a bare majority earn enough to support a one-adult/school-age child/teenager family, but only a small minority earn enough to support a one-adult/infant/preschooler family.

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Table 4			
Shares of Workers Who Earn At Least a Living Wage, by Educational Attainment, 1995-97			
	1 Adult + 1 Infant + 1 Preschooler	1 Adult + 1 School- age + 1 Teenager	2 Adults (Both Working) + 1 Infant + 1 Preschooler, Per Adult
No HS Diploma	13%	33%	43%
HS Graduates	25%	51%	61%
1-3 Years Post-HS	30%	54%	62%
College Graduates	54%	76%	83%
Postgraduate Education	74%	87%	90%

Source: KRC, based on CPS data.

Table 5 shows the shares of jobs in each occupation that pay at least a living wage. In addition to data for major occupational categories, the table also presents data for five of the six occupations that the Pennsylvania Department of Labor and Industry projects will have the most job growth between 1994 and 2005: registered nurses (most job growth), waiters and waitresses (third), cashiers (fourth), retail salespersons (fifth), and nursing aides and orderlies (sixth). Too few respondents in the CPS were employed as systems analysts, the occupation with the second-greatest projected growth, to present separate data for that occupation.⁷ We present data for these fast-growing occupations separately because wages in these occupations differ substantially from those in the same major occupational categories.

Table 5			
Shares of Jobs That Pay At Least a Living Wage, by Occupation, 1995-97			
	1 Adult + 1 Infant + 1 Pre- schooler	1 Adult + 1 School- age + 1 Teenager	2 Adults (Both Working) + 1 Infant + 1 Pre- schooler, Per Adult
Managerial	65%	85%	90%
Professional, except Registered Nurses	60%	78%	84%
Registered Nurses	54%	78%	86%
Technical	35%	66%	77%
Sales, except Retail and Cashiers	42%	66%	74%
Retail Salespersons	13%	23%	30%
Cashiers	4%	7%	11%
Clerical and Administrative Support	17%	46%	60%
Service*	4%	15%	25%
Protective Service	39%	61%	66%
Waiters & Waitresses	3%	8%	14%
Nursing Aides & Orderlies	4%	18%	33%
Farming, Forestry & Fishing	10%	29%	44%
Precision Production, Craft & Repair	49%	78%	85%
Machine Operators, Assemblers & Inspectors	25%	56%	67%
Transportation & Material Moving	35%	65%	73%
Handlers, Equipment Cleaners, Helpers & Laborers	15%	40%	51%

* Service occupations include private household services and do not include protective service, waiters and waitresses, and nursing aides and orderlies.

Source: KRC, based on CPS data. Occupations are as classified in the CPS, except that management-related occupations are classified as professional rather than managerial for consistency with the occupational categories used in Pennsylvania Department of Labor and Industry occupational projections.

Table 5 shows that a majority of jobs in most occupations pay enough to support a two adult/two child family with both parents working, but that fewer jobs pay a living wage under either of the other living-wage definitions. Managerial and professional jobs are much more likely to pay a living wage (however defined) than most jobs that do not typically require a college education; the only non-college jobs that are as likely to pay a living wage as managerial and professional jobs are those in precision production, craft, and repair, and even there, only for some definitions of a living wage.

How Many Living-Wage Job Openings Are Available?

The previous section described the jobs that employed Pennsylvanians hold. But it is job openings, not the jobs of the currently employed, that people seeking work may be able to land. If job openings pay different wages than the jobs of the currently employed, the wages of the latter jobs provide a misleading picture of the opportunities open to people looking for jobs.

To estimate how many living-wage jobs are available per year to people looking for jobs, we use the Pennsylvania Department of Labor and Industry’s occupational projections for the period 1994-2005.⁸ These projections give the average number of job openings per year during that time period.⁹ To estimate annual living-wage job openings in each region of Pennsylvania, we multiply the number of job openings in each occupation (as classified in Table 5) in that region by the share of currently occupied jobs in that occupation and region that pay at least a living wage.¹⁰

Table 6 shows the shares of annual job openings, in each region and in the state as a whole, that pay at least a living wage. These shares are generally a few percentage points lower than the shares of currently occupied jobs that pay a living wage (shown in Table 2). This is because job openings are more likely to be found in low-wage occupations than are currently occupied jobs. Otherwise, the shares in Table 6 vary by region and living-wage definition in ways similar to the shares in Table 2.

	1 Adult + 1 Infant + 1 Preschooler	1 Adult + 1 School- age + 1 Teenager	2 Adults (Both Working) + 1 Infant 1 Preschooler, Per Adult
Metropolitan Philadelphia (PA & NJ)	28%	49%	61%
Metropolitan Pittsburgh	32%	55%	59%
Metropolitan Southern PA	36%	54%	63%
Rest of State	35%	55%	62%
ALL OF PA	33%	53%	61%

Source: KRC, based on CPS data and Pennsylvania Department of Labor and Industry occupational projections. For consistency with the Department of Labor and Industry metropolitan area definition, in this and subsequent tables metropolitan Philadelphia includes Philadelphia, Bucks, Chester, Delaware, and Montgomery Counties in Pennsylvania and Burlington, Camden, Gloucester, and Salem Counties in New Jersey. (Living wages for the Pennsylvania portion of metropolitan Philadelphia are assumed to apply to the entire region.) Other regions defined as in Table 1.

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For comparison with the *numbers* of living-wage job-seekers that will be presented in the following section, Table 7 shows the annual *numbers* of living-wage job openings and job openings at all wages in each region and in the state as a whole.

Table 7 Numbers of Annual Job Openings That Pay At Least a Living Wage and Annual Job Openings At All Wages, By Region, Annual Average 1994-2005				
	1 Adult + 1 Infant + 1 Pre-schooler	1 Adult + 1 School-age + 1 Teenager	2 Adults (Both Working) + 1 Infant + 1 Pre-schooler, Per Adult	Job Openings At All Wages
Metropolitan Philadelphia (PA & NJ)	17,499	30,608	38,010	62,722
Metropolitan Pittsburgh	10,145	17,222	18,600	31,313
Metropolitan Southern PA	13,336	20,286	23,779	37,566
Rest of State	17,581	27,549	31,005	50,089
ALL OF PA	54,255	88,133	102,040	166,255

Source: KRC, based on CPS data and Pennsylvania Department of Labor and Industry occupational projections. Regions defined as in Table 6.

How Many People Are Competing for Living-Wage Jobs?

To measure the number of people per year who are competing for living-wage jobs, we use data from the combined 1996 and 1997 Current Population Surveys. Combining two years' worth of data helps smooth out the effects of short-term economic fluctuations.

There are several groups of people who could be counted as seeking living-wage job openings. The first is the unemployed—people without jobs who are actively looking for work. Some of the unemployed, though, are looking only for part-time jobs; we assume that people who are interested only in part-time work are not looking for living-wage jobs. Others are on temporary layoff, awaiting recall to their previous jobs; we assume that these people are looking only for short-term employment and will eventually return to their old jobs. By subtracting from the number of unemployed people each month those who are looking only for part-time jobs and those who are on temporary layoff, we obtain the number of unemployed people who are available for full-time jobs. This average monthly number, however, is not the same as the total number of people who were ever unemployed at any time during the year. Because any person who is ever unemployed during a year competes for a job opening that year, we need to measure the total number unemployed at any time during the year. According to national data supplied by the Bureau of Labor Statistics, the number of people unemployed at any time during the year, in both 1996 and 1997, was 2.33 times the average monthly number of unemployed.¹¹ Therefore, the number of unemployed people seeking living-wage jobs equals the total number of unemployed (minus the number seeking only part-time work or on temporary layoff) multiplied by 2.33.

The unemployed are not the only people who might want living-wage jobs. Involuntary part-time workers—part-timers who would like to work full-time—are unlikely to be earning a living wage and would presumably take living-wage jobs if they became available. Therefore, we include these people as competitors for living-wage jobs.

Some people want to work but have given up looking for a job because of lack of success in their job search. These “discouraged workers” are potential competitors for living-wage jobs. So are other “marginally attached” workers—people who are neither working nor actively seeking work but who want and are available for work and have looked for a job within the past 12 months.

Finally, new entrants to the labor force are potential competitors for living-wage jobs. New entrants are competing for jobs but, because they have never worked before, have not previously been counted as unemployed. Because the Current Population Survey does not identify new entrants as a separate category, we base our estimates of new entrants on data obtained from the Pennsylvania Department of Labor and Industry.¹²

Taken together, the unemployed, involuntary part-time workers, and discouraged and other marginally attached workers are sometimes referred to as the “underemployed.”¹³ The number of new entrants, plus underemployed people between the ages of 18 and 64 (with the unemployed component adjusted as explained above), is a high estimate of the number of people who are available to take living-wage jobs. This estimate is probably an overestimate, since some new entrants and underemployed people have fewer than two children and, therefore, have basic living costs that are lower than the living-wage amounts shown in Table 1.¹⁴

Alternatively, some might take a narrower view of the number of people who are competing for living-wage jobs. It might be argued that it is impossible to know whether anyone who is not actively looking for a job is really available for work. It might also be argued

that many unmarried people between the ages of 18 and 20 can reasonably be expected to live with parents or other relatives and, therefore, do not need to be paid a living wage as defined in this report. Furthermore, since many new labor force entrants are under 21 years old, they, too, might not need living-wage jobs. This report does not attempt to evaluate these arguments. However, as a low estimate of the number of people who are potentially available for living-wage jobs, we use the number of unemployed people (adjusted as explained above) between the ages of 21 and 64.

Table 8 shows the high and low estimates of the annual number of people who are competing for living-wage jobs in each region and in the state as a whole.

Table 8 Numbers of People Competing for Living-Wage Jobs Annually, By Region, 1996-97		
	Low Estimate*	High Estimate**
Metropolitan Philadelphia (PA & NJ)	202,624	340,171
Metropolitan Pittsburgh	82,645	152,390
Metropolitan Southern PA	52,509	110,890
Rest of State	102,511	227,473
ALL OF PA	385,135	743,237

*Low estimate includes people between 21 and 64 years old who were ever unemployed during a year, minus those who were seeking only part-time jobs and those on temporary layoff.

**High estimate includes new labor force entrants plus people between 18 and 64 who were either ever unemployed during a year (minus those unemployed seeking only part-time jobs and those on temporary layoff), involuntary part-time workers, and discouraged and other marginally attached workers. See text for definitions.

Regions defined as in Table 6.

Source: KRC, based on CPS data, unpublished data from Bureau of Labor Statistics, unpublished data from Pennsylvania Department of Labor and Industry, and Pennsylvania State Data Center, *1996 Pennsylvania Abstract* (Harrisburg: Pennsylvania State Data Center, June 1996), p. 20. Regions defined as in Table 6.

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The Current Population Survey does not indicate how many welfare recipients are included in the estimates in Table 8. If the estimates in Table 8 do not include all welfare recipients who are available for living-wage jobs, then both the high and low estimates are too low. Furthermore, the estimates in Table 8 do not include the much larger number of workers who have jobs that pay less than a living wage. Although many of these people would like a job that pays at least a living wage, they are not counted as living-wage job-seekers. For this reason, both the high and low estimates in Table 8 are conservative estimates of the number of living-wage job-seekers.

How Difficult Is It To Obtain a Living-Wage Job?

To see how severe the competition for living-wage jobs is, Table 9 compares the numbers of people available for living-wage jobs (from Table 8) with the numbers of living-wage job openings (from Table 7) in each region and in the state as a whole. In addition, the last column of Table 9 compares the number of living-wage job-seekers to the number of job openings at any wage level (including wages below a living wage); this column shows approximately how difficult it is to obtain *any* job. In each cell of Table 9, the first number represents the number of living-wage job-seekers per job opening using the low estimate of the number of job-seekers, while the second number represents the number of living-wage job-seekers per job opening using the high estimate.

Table 9 Number of Living-Wage Job-Seekers Per Living-Wage Job Opening, By Region*				
	1 Adult + 1 Infant + 1 Pre- schooler	1 Adult + 1 School- age + 1 Teen- ager	2 Adults (Both Working) + 1 Infant + 1 Pre- schooler, Per Adult	Living- Wage Job- Seekers Per Job Opening At All Wages
Metropolitan Philadelphia (PA & NJ)	11.6 to 19.4	6.6 to 11.1	5.3 to 8.9	3.2 to 5.4
Metropolitan Pittsburgh	8.1 to 15.0	4.8 to 8.8	4.4 to 8.2	2.6 to 4.9
Metropolitan Southern PA	3.9 to 8.3	2.6 to 5.5	2.2 to 4.7	1.4 to 3.0
Rest of State	5.8 to 12.9	3.7 to 8.3	3.3 to 7.3	2.0 to 4.5
ALL OF PA	7.1 to 13.7	4.4 to 8.4	3.8 to 7.3	2.3 to 4.5

*Annual job-seekers based on 1996-97 data. Annual job openings based on projections for period 1994-2005.
Regions defined as in Table 6.
Sources: Tables 7 and 8.

No matter which of our living-wage definitions is used, there is a severe shortage of living-wage jobs in Pennsylvania. Using our lowest definition of a living wage (the living wage for a two-adult/two child family with both adults working) and our low estimate of the number of living-wage job-seekers, there are 3.8 living-wage job-seekers for every living-wage job opening in the state. Using our highest definition of a living wage (the living wage for a one-adult family with one infant and one preschooler) and our high estimate of the number of living-wage job-seekers, the corresponding statewide “job gap” is 13.7 to 1.

No matter how a living wage is defined and no matter which estimate of the number of living-wage job-seekers is used, metropolitan Philadelphia has by far the greatest shortage of living-wage jobs of any region in the state. The lowest estimate of the job gap in the Philadelphia area is 5.3 to 1; the highest is 19.4 to 1. Metropolitan southern Pennsylvania has the smallest job gap of any region in the state; estimates of the job gap there range from 2.2 to 8.3 living-wage job-seekers per living-wage job opening. But this is no cause for celebration, since there is still a shortage of living-wage jobs in that region.

The shortage of living-wage jobs shown in Table 9 is due in part to the fact that there is a shortage of *all* jobs, regardless of wage. Statewide, there are at least 2.3 living-wage job-seekers for every job opening. Once again, metropolitan Philadelphia is the region with the greatest overall shortage of jobs, with at least 3.2 living-wage job-seekers per job opening. Metropolitan southern Pennsylvania, with at least 1.4 living-wage job-seekers per job opening, has the smallest overall job shortage, but it nevertheless has a shortage.

Do Less Educated Workers Have More Difficulty Obtaining Living-Wage Jobs?

Many unemployed and underemployed people, and most welfare recipients, have low levels of formal education or training. Their prospects of finding living-wage jobs are typically worse than those of living-wage job-seekers in general.

To get a rough idea of how much worse, we focus on living-wage job-seekers with a high school diploma or less. We

assume that the job openings available to these job-seekers are jobs in any occupations in which the least-educated 25 percent of current workers throughout the state have no more than a high school diploma.¹⁵ We also assume that job-seekers in this category are the only competitors for job openings in these occupations. Of the occupations listed in Table 5, all except managerial occupations, registered nurses, and other professional occupations meet this 25 percent criterion.

Of course, some technical occupations require a college education, skilled craft jobs often require apprenticeships or other non-college training, and many jobs that do not require a college degree require substantial experience. Moreover, as overall levels of educational attainment rise, employers can sometimes choose to hire more educated workers even if post-secondary education is not required to do the job. As a result, less educated workers are not, in reality, the only competitors for job openings in occupations in which the least-educated 25 percent of current workers have no more than a high school diploma. Even in these jobs, less educated workers may get bumped down in, or out of, the job queue.¹⁶ For all these reasons, our estimates overstate the number of job openings available to less educated workers.

For each region and for the state as a whole, Table 10 shows the number of living-wage job-seekers with a high school diploma or less per non-professional, non-managerial living-wage job opening. With a few exceptions, even these conservative estimates show the gap between living-wage job-seekers and living-wage jobs to be larger for the less educated than for Pennsylvanians in general.

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Table 10
Annual Number of Living-Wage Job-Seekers
With a High School Diploma
or Less Per Non-Professional, Non-Managerial
Living-Wage Job Opening, By Region*

	1 Adult + 1 Infant + 1 Preschooler	1 Adult + 1 School- age + 1 Teenager	2 Adults (Both Working) + 1 Infant + 1 Preschooler, Per Adult
Metropolitan Philadelphia (PA & NJ)	16.2 to 28.2	7.3 to 12.8	5.5 to 9.5
Metropolitan Pittsburgh	8.2 to 17.0	3.9 to 8.1	3.6 to 7.4
Metropolitan Southern PA	4.6 to 10.3	2.6 to 5.9	2.1 to 4.7
Rest of State	7.7 to 17.7	4.2 to 9.7	3.6 to 8.3
ALL OF PA	8.7 to 18.0	4.5 to 9.3	3.7 to 7.5

*Annual job-seekers based on 1996-97 data. Annual job openings based on projections for period 1994-2005.
Regions defined as in Table 6.
Sources: Same as for Tables 7 and 8.

Conclusion

There is a shortage of jobs in Pennsylvania and a severe shortage of living-wage jobs. These shortages are especially acute in the Philadelphia metropolitan area. The shortage of living-wage jobs is generally a bigger problem for less educated job-seekers than for Pennsylvanians as a whole.

To remedy the shortage of living-wage jobs, public policy could try either to reduce the number of people seeking those jobs (by giving some people alternative sources of income so that fewer of them will need living-wage jobs) or to increase the number of living-wage jobs. Current public policies in Pennsylvania and elsewhere in the nation, especially welfare policies, reject the former option. Therefore, we must find ways to create more living-wage jobs.¹⁷ If we do not do so, some job-seekers will remain unemployed or give up looking for work, relying when they can on public or private assistance. Others will take jobs that pay too little to meet their families' basic needs, with undesirable long-term consequences for the well-being of the next generation. Pennsylvania should not tolerate these alternatives. Our goal should be self-sufficiency—a living-wage job for every Pennsylvanian who needs one.

FOOTNOTES

¹ For a detailed description of the self-sufficiency standard and values of the standard for every county in Pennsylvania, see Diana Pearce and Jennifer Brooks, *The Self-Sufficiency Standard for Pennsylvania* (Swarthmore: Women's Association for Women's Alternatives, 1997). Pearce and Brooks based the self-sufficiency standard on 1996 consumption patterns and expressed it in 1996 dollars. We convert their estimates to 1998 dollars.

² Moderate-quality child care is estimated to cost more than 75 percent of all child care in the state market survey and less than 25 percent. Research shows that much child care is of mediocre quality and a substantial minority is harmful to children. Only in the upper tier of the child care cost distribution is there a good chance that care will be consistently adequate, and even here there is no guarantee.

³ The Philadelphia County estimates in Pearce and Brooks, *Self-Sufficiency Standard*, p. 33, omit the Philadelphia city wage tax. To correct for this omission, we add five cents per hour in 1996 dollars (or \$8.67 per month for a full-time worker who works an average of 173.33 hours per month) to each of the published Philadelphia County figures. Personal communication with Lise Reno, Women's Association for Women's Alternatives, Swarthmore, PA, November 1998.

⁴ The November 1998 civilian labor force estimates by county are found in Pennsylvania Department of Labor and Industry, *Civilian Labor Force Data by LMA/County of Residence* (Harrisburg: Pennsylvania Department of Labor and Industry, December 1998).

⁵ To determine annual equivalents we multiply the monthly wages by 12. To determine hourly equivalents we divide the annual equivalents by 2080.

⁶ The Current Population Survey contains information about weekly wages. To convert weekly wages to monthly, we multiply weekly wages by 4.33.

⁷ Occupations with the greatest projected job growth were identified from Pennsylvania Department of Labor and Industry, *Employment Outlook in Pennsylvania Industries and Occupations* (Harrisburg: Pennsylvania Department of Labor and Industry, no date).

⁸ For the state as a whole, these projections are found in Pennsylvania Department of Labor and Industry, *Employment Outlook in Pennsylvania Industries and Occupations* (Harrisburg: Pennsylvania Department of Labor and Industry, no date). For metropolitan areas, they are found in *Employment Outlook in Industries and Occupations* (separate reports for each metropolitan area) (Harrisburg: Pennsylvania Department of Labor and Industry, no date).

⁹ The Department of Labor and Industry makes projections of the average annual number of "net job openings." Net job openings consist of annual job growth in each occupation plus jobs that become available because people leave the occupation and do not return. Because we are interested in the jobs that will be available to people who are either entering the labor force for the first time (such as many welfare recipients), otherwise not employed, or changing occupations, we do not include the many job openings that are created because of job-changing within an occupation. Net job openings are the best measure of jobs available to people who are not currently employed or who are looking to change occupations. The Department of Labor and Industry's *Employment Outlook* reports use the term "total openings," but this term actually refers to net openings. Personal communication, Bureau of Research and Statistics, Pennsylvania Department of Labor and Industry, January 1999.

¹⁰ There are three technical issues in deriving these estimates. (1) The Department of Labor and Industry's occupational projections for the Philadelphia metropolitan area cover Burlington, Camden, Gloucester, and Salem Counties in New Jersey as well as Philadelphia, Bucks, Chester, Delaware, and Montgomery Counties in Pennsylvania. For this reason, our Philadelphia-area estimates of living-wage job openings and job-seekers include both the New Jersey and Pennsylvania portions of the metropolitan area. For the purpose of producing statewide estimates for Pennsylvania, we assume that the Pennsylvania share of jobs in each occupation in the Philadelphia metropolitan area is the same as the Pennsylvania share of workers in that occupation as given in the 1995-97 combined Current Population Surveys. (2) Our estimates for the "rest of state" region are derived by subtracting the sum of the metropolitan Philadelphia, metropolitan Pittsburgh, and metropolitan southern Pennsylvania estimates from those for the state as a whole. This procedure is necessary because the Department of Labor and Industry does not produce job projections for nonmetropolitan areas of the state. However, the Department's projections for the state as a whole are derived from a different survey than those for the

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metropolitan areas, so some inconsistencies may result. Therefore, our estimates for the “rest of state” region are less reliable than those for the other three regions. (3) In each metropolitan area and in the state as a whole, the Department of Labor and Industry’s job-openings projections for the various occupations do not add up to its projections for all occupations in the state or region because of rounding error. The margin of error ranges from less than 2 percent to about 5 percent, depending on region. Because these differences are large, we have adjusted our estimates of living-wage job openings in each occupation so that they add up to the Department’s statewide or region-wide total projections of job openings.

¹¹ In the entire United States in 1996, 15.6 million people were ever unemployed at any time during the year and 6.7 million were unemployed on average each month. In 1997, 16.8 million were ever unemployed at any time during the year and 7.2 million were unemployed on average each month. In each year the ratio of ever unemployed during the year to average unemployed per month was 2.33. Data based on 1996 and 1997 Current Population Surveys was supplied by Office of Employment and Unemployment Statistics, Bureau of Labor Statistics, personal communication, January 1999.

¹² The number of new entrants to the Pennsylvania labor force was 19,000 in 1996 and 26,000 in 1997. Personal Communication, Bureau of Research and Statistics, Pennsylvania Department of Labor and Industry, January 1999. To maintain comparability with our other estimates of sources of competition for living-wage jobs, we use the 1996-97 average of 22,500 new entrants per year statewide. Because there are no regional data on new entrants, we estimate the number of new entrants in each region by assuming that new entrants are distributed among the four major regions of Pennsylvania in the same proportions as the population of 15- to 19-year-olds. According to the 1990 Census, 30.1 percent of Pennsylvania’s 15- to 19-year-olds lived in the Pennsylvania portion of metropolitan Philadelphia, 18.8 percent in metropolitan Pittsburgh, 19.1 percent in metropolitan southern Pennsylvania, and 32.0 percent in the rest of the state. Calculated from Pennsylvania State Data Center, *1996 Pennsylvania Abstract* (Harrisburg: Pennsylvania State Data Center), p. 20. The number of new entrants in the entire metropolitan Philadelphia area (including New Jersey as well as Pennsylvania) was imputed by assuming that the number of new entrants in each state’s portion of the region was proportional to that state’s portion of the region’s November 1998 civilian labor force. (This resulted in estimating the number of new entrants for the entire metropolitan Philadelphia region as 1.338 times the estimated number of new entrants in the Pennsylvania portion of the region.) November 1998 civilian labor force data were obtained from Pennsylvania Department of Labor and Industry, *Civilian Labor Force Data by LMA/County of Residence* (Harrisburg: Pennsylvania Department of Labor and Industry, December 1998).

¹³ See Lawrence Mishel, Jared Bernstein, and John Schmitt, *The State of Working America 1996-97* (Armonk, NY: M.E. Sharpe, 1997), p.243.

¹⁴ In addition, the high estimate could overstate the number of living-wage job-seekers because some people may, at different times during a year, fall into more than one of our categories of unemployed, marginally attached, involuntary part-timer, and new entrant. (For example, someone who is counted as unemployed in one month may quit looking for work and be counted as marginally attached in a later month.) Such people would be counted twice in our high estimate of living-wage job-seekers. The Current Population Survey provides no means of identifying and eliminating this double-counting. However, there is a counteracting omission that could compensate or even overcompensate for this deficiency. Although we are able to estimate the number of people who are ever unemployed during a year, the data do not permit us to estimate the number of people who are ever marginally attached or ever involuntary part-timers during a year. Therefore, our high estimate may understate the numbers of marginally attached and involuntary part-time workers by including only the average monthly numbers of such people, not the numbers of people who ever fell into these categories during a year.

¹⁵ This criterion is one of several that have been used to identify jobs open to less educated workers. See Laura Leete and Neil Bania, “The Impact of Welfare Reform on Local Labor Markets,” *Journal of Policy Analysis and Management*, vol. 18 (Winter 1999), pp. 50-76.

¹⁶ See, e.g., Lester C. Thurow, *Generating Inequality* (New York: Basic, 1975), pp. 91-97.

¹⁷ For public policy recommendations designed to expand the availability of living-wage jobs, see Stephen Herzenberg and Howard Wial, *The State of Working Pennsylvania 1998*, pp. 14-25.

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