Number of Low-Wage Workers (Home Location)

This EnviroAtlas national demographics map estimates the number of workers earning $1250 or less per month summarized by low-income households within each U.S. Census block group.

Why are low-income workers important?

Between 2007 and 2011, the number of low-income families increased from 28 to 32 percent of the US population.[1] In 2012, in the midst of the recession when workers were experiencing job loss and financial stress, there were more people living in poverty in the suburbs than in central cities, a 65% increase in suburban poor since 2000.[2] Despite the recession, urban demographics have been changing gradually over the last decade, with a movement of urban low-income residents to the suburbs.

Over the last several decades, many communities across the U.S. have experienced a decline in traditional downtown employment centers in favor of office parks and retail in outer suburbs. The movement of jobs to the suburbs away from urban residential core areas has been most prevalent in industries that offer low- and middle-skill jobs. The National Research Council reported that while half of people on welfare still live in the core city, 70% of jobs available to them are located in the suburbs.[3]

While this movement of jobs and low-income residents to the suburbs should benefit low-income workers, job dispersion can result in additional hardships for workers in the form of increased transportation costs (automobile ownership, maintenance, and fuel). A spatial disconnection remains between neighborhoods with affordable low-income housing and concentrations of available jobs.[4] As a result, transportation is the biggest impediment to finding and keeping a job for low-income jobseekers.[5] Though driving is the only way to effectively get around in most suburban areas, car ownership is a financial burden on poor families. Lacking access to a vehicle can severely limit the ability of a household to meet its daily needs. As a result, the dispersion of employment to the suburbs can result in reduced accessibility to jobs through longer average trip distances, increased traffic, and lack of public transit. Further complicating the task of connecting potential low-income workers and jobs is the fact that more than half of suburban zero-vehicle households occur in neighborhoods without transit coverage.[6]

Photo: Boston neighborhood, J. Laber

Knowing the distribution of low- and middle-skill jobs is prerequisite to planning for affordable housing centers that are accessible to jobs. The occurrence of affordable-accessible housing is a useful measure of equity in city planning. The development of affordable housing is an antidote to gentrification, which often replaces low-income housing with housing for more affluent residents. A common benchmark states that housing and transport should together total less than 45% of income.[7] Research has shown that the proportion of household budgets devoted to housing and transportation tends to be a larger proportion of the total at lower income levels. Low-income households have more difficulty affording housing in urban areas and transport costs in suburban areas. Transport costs alone vary from about 10% of earnings in compact communities up to about 25% in automobile-dependent suburban communities.[7]

Changing demographic patterns in suburbia suggest that more emphasis is needed within suburban communities on planning for walkable and bike-able neighborhoods, employment centers, and increased access to public transportation. Land use diversity that mixes housing, jobs, and services within neighborhoods can reduce vehicle miles traveled by making walking, biking, and transit more appealing. Planning strategies for compact neighborhoods promote housing in job-rich areas and new employment centers in dense residential zones.[2] Other recent studies suggest that consistently reducing private auto usage through urban development design guidelines nationwide would help to improve air quality and public health through lower greenhouse gas emissions.[3]

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How can I use this information?

Identifying neighborhoods with or without a low-income worker to job balance can be useful in a number of different urban planning contexts. Planners can promote increased affordable housing in neighborhoods with good employment density and a low working population. Transit planners may wish to identify neighborhoods and corridors that can support new or enhanced transit service. Localities may also consider creating compact, diverse neighborhoods and prioritizing improvements such as sidewalks, street lighting, or bike lanes. Focusing improvements in compact neighborhoods can ensure that the greatest number of people benefit from them.

This data layer may be compared to other EnviroAtlas demographic and Smart Location data layers. Any of these layers may be compared with EnviroAtlas community land cover maps that show impervious surfaces, street trees, and other common land covers at 1-meter resolution for select communities.

How were the data for this map created?

The 2010 Census Longitudinal Employer Household Dynamics Residence Area Characteristics tables (LEHD RAC) provided a count of the number of low-income workers, that is, workers earning $1250 or less per month, summarized by their residences in each census block group. For more information, please see the metric R_LowWageWk in the Smart Location Database User Guide.

What are the limitations of these data?

Census block groups typically include a mixture of developed, undeveloped, residential, and business areas. A balance of low-income workers and jobs across block groups does not necessarily indicate that the majority of low-income residents avoids commuting and works locally. The metric highlights regional patterns or specific neighborhoods that lack low-income workers with access to jobs that would benefit from further study.

How can I access these data?

EnviroAtlas data can be viewed in the interactive map, accessed through web services, or downloaded. This data layer is incorporated into a larger EPA data product called the Smart Location Database. The Smart Location Database is a nationwide geographic data resource for measuring location efficiency. Most attributes are available for every census block group in the United States.

Where can I get more information?

A selection of resources on the relationships among low income workers, transportation choices, and environmental quality is listed below. More details about this metric are available in the Smart Location Database User Guide. In addition, EPA's Smart Growth Program provides tools, resources, and technical assistance to communities seeking to pursue compact and mixed-use development strategies to create vibrant, walkable neighborhoods while protecting public health and the environment. For information on how city planning strategies may affect human health, visit the Eco-Health Relationship Browser. For additional information on the data creation process, access the metadata for the data layer from the drop down menu on the interactive map layer list. To ask specific questions about this data layer, please contact the EnviroAtlas Team.

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