



Entertainment Job Density

This map estimates the number of entertainment jobs per unprotected acre within each census block group in 2010.

Why is entertainment job density important?

Entertainment job density is one of many measures or variables used by city planners to examine the proportions of residents, jobs, and services in urban areas and to guide development planning for efficient city design and transit networks. Besides indicating the number of jobs per unprotected acre within a census block group, the metric also suggests a level of economic activity in the block group. Job densities in particular job classes may be compared with overall employment density to highlight job distributions within and among block groups.

The entertainment employment classification includes jobs in the arts, entertainment, and recreation (e.g., sports, theater, dance, event promotion, museums, fitness centers, and outdoor recreation) and the accommodation and food services sector (e.g., food preparation, chefs, food servers, and hotel staff). The wages within the class range from entry-level wages to managerial salaries. The food services sector has the lowest average wages of any of the labor categories.¹ Though workers of all ages work in food service and accommodation, the job class is known as a source of entry-level jobs for the teen-aged workforce. In 2014, 35% of working teens were employed in accommodation and food services and 7% in entertainment and recreation.²

Since the mid-1950s the U.S. economy has been evolving toward a post-industrial service economy. Service jobs of all types presently make up about 84% of the overall economy.³ The entertainment category in the Smart Locations database is a subset of job categories that is often listed in the service sector in the economics literature. The entertainment jobs described here comprise about 5% of U.S. gross domestic product.³ Unlike many manufacturing and office jobs, entertainment jobs are not subject to offshoring because they provide a personal service and rely on direct customer contact.

The entertainment sector lost over 450,000 jobs in the recent recession, over half of them in food services. Overall recovery from the recession has been led by low-wage employment in entertainment (in addition to low-wage employment in retail and administrative services). Between 2008 and 2012, employment in food service increased by



Photo: Night game, Wikimedia Commons

9%, gambling and recreation 4.4%, museums 6.9%, and performing arts 6.1%.⁴ Outdoor recreation, which supports over 6 million jobs in the U.S., was little affected by the recent recession, growing 5% annually from 2005 to 2011.⁵

Entertainment job density tends to be higher in downtown central business districts and in outlying suburban subcenters. Knowing the distribution of various job densities is prerequisite to planning for transportation networks and affordable housing developments that are accessible to jobs of all wage classes. However, entertainment job density differs from other job classes in that it is not just concentrated in developed areas. Because this job class contains outdoor recreation, number and density of jobs may be high even in undeveloped wilderness areas (for, example near national parks).

Smart Growth planning programs promote the development of a diversity of residences, employment opportunities, and services within vibrant compact, mixed-use, and walkable neighborhoods. Related planning strategies promote housing in job-rich areas and new employment centers in dense residential zones. Resident workers with easy accessibility to a diversity of job types in various wage classes can reduce not only vehicle miles traveled (VMT) but fuel consumption and [greenhouse gas emissions](#) (GHGs) associated with employee commuting trips.

How can I use this information?

This map, Entertainment: Job Density, allows users to evaluate various block groups by the number of

entertainment jobs per unprotected acre relative to other characteristics. Comparing this map to areas of relatively high-, low- and middle-wage worker residential density may indicate the effectiveness of community design and road networks to link potential workers with job opportunities. Planners may want to promote increased affordable housing in block groups with high entertainment employment density and a low resident working population. They may identify neighborhoods with optimal numbers of jobs and housing that can support new or enhanced transit service. Economic development agencies in regions with limited transit service may use this map to encourage the siting of new entertainment centers in areas that are highly accessible to transit and the regional workforce.

This data layer may be compared to other EnviroAtlas demographic and Smart Location data layers. The aerial-image base map (seen by increasing the transparency of the map layers) can be used to show the spatial distribution of the built environment within the block groups.

How were the data for this map created?

The 2010 [Census LEHD](#) (Longitudinal Employer-Household Dynamics) database gave the total number of entertainment jobs (NAICS sectors 71 and 72) by U.S. Census block group. EPA then isolated areas of the block group that were not protected from development. NAVTEQ data (2011) provided the location of federal, state, and local parks, zoos, cemeteries, public beaches, and water bodies. The Protected Area Database (PAD-US v1.3) provided the locations of parks and protected natural areas as well as privately-owned land area with restrictions on development (such as conservation easements). The relevant portions of each protected area dataset were intersected and dissolved into a single polygon layer that represented all areas in which development was restricted. The resulting protected areas layer was then integrated with the block group areas in GIS. EPA used this block group unprotected acreage as the denominator to calculate entertainment employment density. The metric, listed as D1c8_Ent10, may be found in the [Smart Location Database User Guide](#).

Selected Publications

1. Ruetschlin, C. 2014. [Fast food failure: How CEO-to-worker pay disparity undermines the industry and the overall economy](#). Demos, New York. 32 p.
2. Poole, N. 2015. [Teen unemployment down significantly post-recession](#). Minnesota Business Magazine, accessed June 2015.
3. Haksever, C., and B. Render. 2013. [Service management: An integrated approach to supply chain management and operations](#). FT Press, Upper Saddle River, New Jersey. 528 p.
4. National Employment Law Project (NELP). 2014. [The low wage recovery: Industry employment and wages four years into the recovery](#). Accessed June, 2015.
5. Outdoor Industry Association. 2012. [The outdoor recreation economy](#). Accessed June 2015.
6. National Research Council. 2009. [Driving and the built environment: The effects of compact development on motorized travel, energy use, and CO₂ emissions](#). Special Report 298, The National Academies Press, Washington, D.C. 240 p.

What are the limitations of these data?

Entertainment job density, when representing outdoor recreation in remote recreation areas or national parks, may be zero when the Number of Jobs metric shows a significant number of jobs because the denominator (unprotected or developed acreage) may be zero. It is also important to remember that jobs or residences are not distributed evenly throughout the area of a block group. A diversity of land uses or activities may be sparsely distributed in large census block groups. On the other hand, a small block group may be uniform and low in diversity, but it may be located within easy access to a more diverse block group. Using the aerial-image base map will give an indication of the proportions of developed and undeveloped land in each census block group.

How can I access these data?

EnviroAtlas data can be viewed in the interactive map, accessed through web services, or downloaded. Data from the [2010 U.S. Census](#) may be viewed and downloaded from the census website.

Where can I get more information?

A selection of resources on the relationships among entertainment jobs, city planning, and environmental quality is listed below. EPA's [Smart Growth Program](#) provides tools, resources, and technical assistance to communities seeking to pursue compact and transit-oriented development strategies to protect public health and the environment. For additional information on the data creation process, access the metadata for the data layer from the drop down menu on the interactive map table of contents and click again on metadata at the bottom of the metadata summary page for more details. To ask specific questions about this data layer, please contact the [EnviroAtlas Team](#).

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