Employment Data

For a number of metropolitan planning organizations (MPOs) and other planning agencies charged with developing demographic data, accurate employment data can be an elusive and challenging aspect of inventorying and forecasting regional demographic data. Information not only needs to be accurate at the region-wide level but also at the traffic analysis zone (TAZ) and sector or district levels. Determining an accurate control total for the region is typically the first step in the process but may not represent the greatest challenge. Employment data must be stratified into employment categories (e.g. basic, retail, service and government), disaggregated to the zonal level and compared against population (e.g. employees per person) and household (e.g. employees per household) data at the regional, sector and zonal levels to ensure the information is representative of current trends and socio-economic patterns.

The following is a brief synopsis of contributions to the e-mail list regarding employment data/categories, including available employment data sources and the challenges associated with each database, potential long-term workforce participation trends that may impact travel, and some brief concluding statements from contributors to the e-mail list.

Employment Categories

As noted by one contributor, the number of employment categories needs to align with the needs of the travel demand model (TDM). Nationally, among different urban areas, there is a large variability of employment categories used in the models. Categories mentioned include industrial, commercial, service, education, FIRE (i.e. financial, insurance and real estate) and government. Identifying an appropriate number of employment categories, according to one contributor, may be a function of model complexity (e.g. gravity vs. destination choice). The North American Industry Classification System (NAICS) is typically referenced and customized locally to match local area employment category definitions. Prior to the NAICS, the Standard Industrial Classification (SIC) codes were used to categorize employment. Cross tabulations between the two systems have been developed to aid the migration between the two systems.

Data Sources

There are a number of public and private sources for determining regional employment control totals. Some states, such as Texas, make employment data available through a state employment or workforce agency. Other contributors to the e-mail list noted private vendors as potential sources. Primarily though, the e-mail discussion focused on three national sources – the Bureau of Labor Statistics (BLS), Bureau of Economic Analysis (BEA), and Census 2000/American Community Survey (ACS). There are a number of distinguishing features associated with each database. As noted by a contributor to the e-mail list, “no one data set captures all of the nuances of employment.” To assist with defining the differences between these prominent databases, a number of contributors to the subject provided overviews for each of the databases noted above. Below is a brief synopsis of those contributions by data source:

Bureau of Labor Statistics (BLS): BLS data is based on the ES-202 databases, which are monthly or quarterly census of employment and wages using payroll data (except for farm employment). The data represents a count of individuals who were issued paychecks during the reporting period. Because of this, the data does not distinguish between full or part-time workers or capture volunteer workers, contract labor, or business owners that do not pay themselves a salary. All part-time employment (no matter how short the time frame) that is salaried during the period is counted, including weekend jobs. The BLS, as noted by one key participant in the discussion, also includes other estimates of labor force and employed residents (place-of-residence) information that can be compared to Census 2000 and ACS data.

The labor force and employed residents data is available in the Local Area Unemployment Statistics (LAUS) program, which is based on three different databases – Current Population Survey (CPS), Current Employment Statistics (CES), and Unemployment Insurance (UI) data.

Bureau of Economic Analysis (BEA): The BEA "augments" the ES-202 data used by the BLS with data from the Internal Revenue Service (IRS) by including information on farm and non-farm proprietors. Since the data is payroll related, BEA data can be considered, "place-of-work," data. As one participant noted, BEA is, "a count of jobs rather than FTE (Full-Time Employee) numbers."

U.S. Census: The Census database is a survey of households conducted every ten years and respondents are asked to identify their primary job. A "primary" job can be either a part-time or full-time job. Consequently, the respondent is either employed, unemployed or not in the labor force. The data does not capture individuals with multiple jobs. Unlike the BLS data, the information does capture information about household employment and volunteer employment, but only because this is the persons "primary" job. Since the information is collected at the household, the employment data represents place-of-residence information.

Potential Long-Range Trends

As noted by several respondents, historical and existing economic and socio-economic conditions reveal that the national average of workers per household has remained relatively constant over time (e.g. approximately 1.22) and since 1960, the average household size has declined (although it has flattened more recently). Currently, there are a large number of single person households that keep the number of workers per household relatively low. However it may not be safe to assume that these trends will continue because of the aging population in the United States and the pending retirement of the "baby-boom" generation, which could impact participation rates in the economy and workforce. As noted by one contributor, it might be, "relevant to create scenarios with different numbers," to address the pending generational issues.

Another trend noted by contributors is a concept referred to as the centralization of employment. As regions mature and develop diversified bases of employment, the number of employees per person generally increases, which is most evident in older urban areas. Within small geographic areas in an urban area, "the number of people that work in an area can exceed the number of workers who live in the area."

Conclusions

There are a number of employment data sources but there isn't consistency among the potential resources. Confusion sometimes arises in how these different databases define a worker. Labor force includes unemployed individuals while a worker is defined as someone having a job. As one contributor summarized, the decennial census, ACS and information from the LAUS program are sources of labor force and employed residents. The CES data from the BLS and BEA data can be used to gather specific employment figures for an urban area. Another contributor suggested that a potential benchmark of jobs and workers in the region might be, "the region-wide expansion of a really-good household survey," assuming the expansion isn't set to a pre-determined target value.

As the current generation of "baby-boomers" retires, planners may have to re-consider the impacts that this generation may have on the underlying employment figures if these people choose to work longer in years, become self-employed, and hold part-time and/or volunteer positions long into retirement. As noted by e-mail list contributors, the self-employed, part-time

and volunteer positions may not be accurately inventoried or evident in the available databases. The corresponding impacts on trip lengths and vehicle usage, however, could be quite profound.