

# Projection Implications on the Economy

## Transportation Planning

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The demand for transportation services is based upon the relationship between land use and trip making. A large portion of travel is generated by interactions between population concentrations (as measured by households) which tend to produce trips and employment centers which tend to attract trips. A basic measure of travel demand is vehicle miles of travel (number of vehicles times distance traveled) or VMT. Based on the Indiana Department of Transportation's current population and employment forecasts (2000 to 2030) applied through the statewide travel demand simulation model, we see the total growth in VMT increasing 38 percent over that thirty-year period and truck-related VMT increasing by 85 percent. Freight-related traffic is expected to increase more rapidly than passenger traffic due to the increased dispersion of population and employment, increases in income driving demand for consumer goods, and the longer trip lengths associated with the global economy.

The future population projections outline a continuation of recent trends in increased suburbanization and growth of the major metropolitan areas. This is

resulting in a shift of travel patterns from the more traditional radial suburban-to-downtown business district patterns to suburban-to-suburban circumferential travel. Increased congestion levels in these outlying areas will place additional demands on making roadway improvements in these lower density areas experiencing suburbanization.

The aging of the population will also affect travel demand. Personal travel is closely related to the lifestyle of the individual. Persons exhibit peak travel activity at 35 to 50 years of age. As the population ages, the rate of trip making declines, providing a moderating impact on future travel demand growth. This moderating impact will be most pronounced in the rural areas of the state where the median age of the population tends to be higher.

INDOT will use the new 2005 to 2040 population projections as a key input into the update of the statewide travel demand simulation model as we advance our horizon planning year from 2030 to 2035.

## Land Use

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Many Hoosiers have become increasingly concerned about the rapid pace of urban development in Indiana. We are seeing the loss of agricultural land, forests, environmentally-sensitive areas, and other open space to new subdivisions and commercial and industrial development. Some have characterized current patterns of development as "urban sprawl." While the population of Indiana is projected to increase by 15 percent from 2005 to 2040, the amount of land in Indiana in urban use could increase by a third or more, resulting in the loss of over 60,000 acres of rural land to urban development, according to the Indiana Department of Transportation.

Urban development is associated with population growth as new residences and businesses are developed to accommodate increasing population. The population projections developed by the Indiana Business Research Center show where these changes will be the greatest and provide the basis for planning to deal with them.

The distribution of projected population growth across Indiana's counties is very uneven. Just sixteen counties have projected population increases from 2005 to 2040 of 10,000 or more (see accompanying metro map).

These sixteen counties account for 86 percent of the net population growth projected for Indiana to 2040. The counties are located within or adjacent to the largest metropolitan areas in the state or are the homes of Indiana's two largest public universities. These are the counties that will see the largest amounts of urban development and the highest levels of conversion of rural land to urban uses.

An additional 12 counties are projected to have population growth in excess of 5,000 persons by 2040, accounting for an additional 9 percent of the state's projected population growth. These counties will also be facing significant urban development.

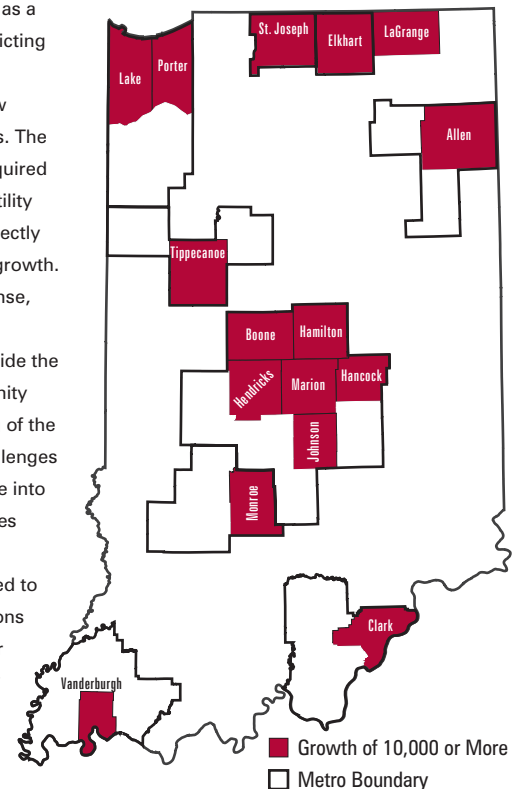
Population projections are literally the starting point for planning for new urban development. Comprehensive plans and zoning ordinances set guidelines for development. The development of these tools requires careful consideration

of the population to be accommodated and the residential, commercial, and industrial development needed for that population.

For the public infrastructure required to support new growth, population projections likewise provide the point of departure for the planning. Everyone understands the importance of population projections for the planning for new schools in growing areas. Transportation planners use

projected populations as a major element in predicting future travel demand when planning for new transportation facilities. The additional capacity required for water and sewer utility systems is likewise directly related to population growth.

In the broadest sense, projections of future population levels provide the residents of a community with an understanding of the opportunities and challenges they face as they move into the future. Communities faced with significant population growth need to consider the implications of that growth for their communities and how they will manage that growth.



# Education Enrollment Numbers Are a Significant Matter

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**D**uring the thirteen years of my professional career spent at the State House, very few policy matters intrigued me more than the development of the state budget, and the school funding formula in particular. Before voting on each version of the state budget bill, legislators were certain to review the school funding formula printouts to determine whether the school corporations in their legislative districts were to receive increased or decreased funding. Generally speaking, and to over-simplify the school funding formula, increased or decreased funding was predicated on the enrollment trends of each school corporation. Thus, enrollment projections are a matter of serious concern for schools.

When looking at state population trends through 2040, it is projected that the total population of school-aged children (defined as age 5 to 19) will remain relatively constant, with only a slight increase of approximately 40,000 students. This projection in and of itself will not alter public school funding in Indiana in any significant manner. Over time, school corporations that lose or gain students will certainly lose or gain funding through the formula—a matter of great significance locally. However, at the state level, population trends that reflect the growing diversity of the student population in terms of family income, students with disabilities, and limited-English proficiency (LEP), to

name a few, are just as important to consider. For example, the school funding formula includes a complexity index that generates additional funds to school corporations that have higher percentages of students from low-income families (as measured by the percent of the student population that qualifies for free and reduced-price meals). Additionally, school corporations that have increasing populations of special needs or LEP students (a population that grew statewide 408 percent from 1994–95 to 2004–05) are likely to receive additional categorical funding under present-day state funding priorities.

Yes, student enrollment trends are matters of high significance in K–12 education in Indiana. However, a singular focus on enrollment trends would understate the importance of this age cohort on the economic vitality of the state. To ensure long-term economic development and job growth in the Hoosier state, we must also pay careful attention to increasing the high school graduation rates, sustaining improvements in college attendance rates, and elevating college graduation rates. If the state can succeed in improving these achievement outcomes, we should find substantial growth in the overall literacy and educational attainment levels of our adult population. Ultimately, this will lead to a lower reliance on public assistance programs, a larger tax base, and a skilled workforce to grow jobs—a winning proposition for Indiana!

## Job Training and Areas of Labor Shortages

**Carol O. Rogers: Executive Editor, Indiana Business Research Center**

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**P**opulation projections are a key component used to calculate labor force projections. These labor force projections are then used by state and local government officials to identify industries and occupations that are facing an aging and/or shrinking labor pool. By identifying those areas with potential future labor shortages, policy makers can target job training programs to meet future needs.

An aging labor force is not unique to Indiana, and we know that once individuals reach 55, labor force participation declines dramatically. As the nation's 45-to-54 age group continues to migrate into the 55-to-64 age group, there are growing concerns over a shortage of skilled workers to fill jobs in industries such as construction, manufacturing and health care nationwide.

Skilled occupations within these industries can be targeted for job training. Occupations that would most likely be affected by the generation shifts due to their prominence in the “aging workforce industries” are a variety of engineers and engineering technicians, electrical occupations, health care occupations, sales occupations, maintenance and repair occupations, production and transportation, and material moving occupations.

Identifying industries and occupations that will be most impacted by an aging population shows where to direct job training resources. This information is used to focus on specific skills needed for job training and change educational curriculum to address projected shortages before they become problematic.

## Public Health

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**P**ublic health is all about people and monitoring the health status of the community, diagnosing and investigating health problems, educating and empowering people about health issues, assuring the provision of health care when it is otherwise unavailable, and evaluating outcomes. These are all reliant on accurate and timely data, particularly population data. Even more useful can be projections of population with characteristics such as gender and age and race or ethnicity. The following lists a selection of examples where population projections provide critical inputs:

- Healthy People 2020 and setting the framework for national health objectives.
- Resource planning purposes around the core functions of public health—assessment, policy development, and assurance.
- State and county projections for calculating the gaps in care.
- Accurate data that describe the local community, rather than the national average—can be used to compare communities and tease out issues of health disparities among communities or between demographic groups.
- Accurate population projections for public health emergency preparedness planning.
- The importance of data for developing attractive and persuasive funding requests.