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A New Plan for Growing Indiana's Income

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The Indiana Economic Development Corporation (IEDC) released a new economic development plan, *Accelerating Growth*, on April 25, 2006, which has as its primary aim or “vision” to boost the state’s personal income per capita to the national average by 2020. To accomplish this, the IEDC outlines numerous steps to improve capital formation, largely by various and sundry traditional spending and tax incentives, as well as a few more novel programs that take the government into new areas of intervention in economic activity. These include new types of tax abatement and direct investment programs that states have begun to use. Another novel feature is an emphasis on health as a factor boosting the quality of the workforce. The focus here is on clarifying the importance and achievability of the plan’s goal rather than the specifics of how it might be attempted.

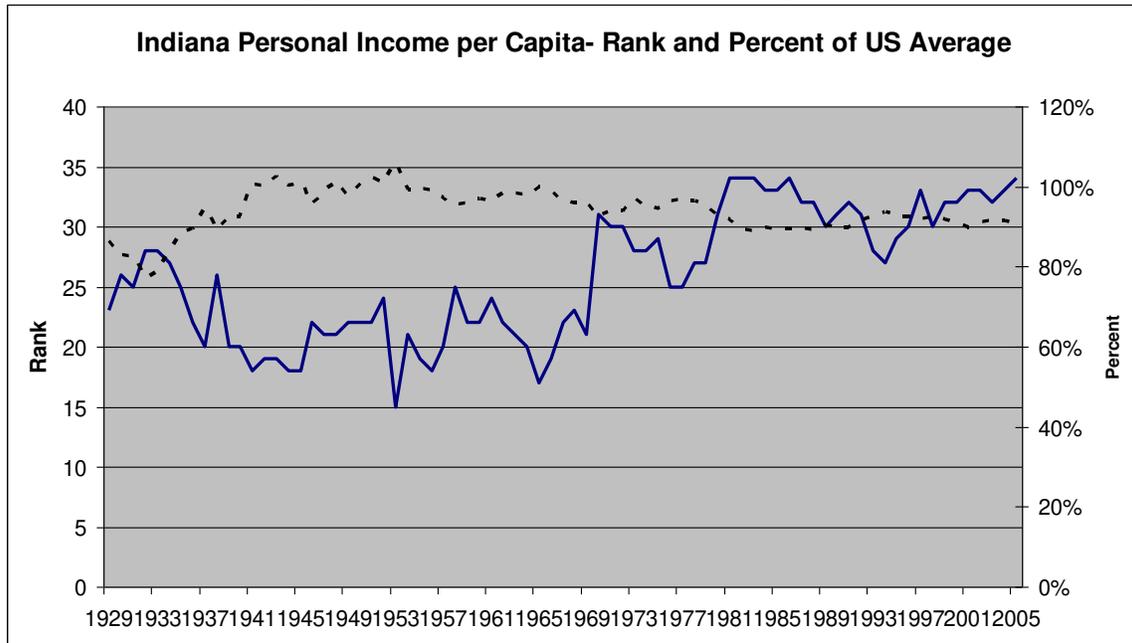
At first glance, an effort to achieve an average national standard in 15 years might seem to be an unusually low aspiration. But the IEDC explains that this may be a more challenging task than is obvious. *Accelerating Growth* describes many obstacles, but there is another perspective, a purely historical one, that makes achievement of this vision seem especially challenging. Chart 1 shows that, since 1981, Indiana has ranked about 30th to 34th in the nation in per capita personal income; such income has generally been about 90 percent of the national average since 1981.¹ In 1994, it temporarily returned to 94 percent. To reverse a 25-year-old pattern over the next 15 years suggests a major shift, perhaps an ambitious objective. In 2005 Indiana per capita personal income was 90.4 percent of the national average (91.4 percent according to the IEDC), reflecting about a 10 percent gap that the IEDC envisions closing over the next 15 years.

The IEDC suggests that the vision is achievable because such growth over the past 15 years was not unusual elsewhere. They claim that 4 states grew more than 20 percent faster *per year* over the 15-year period ending in 2005, suggesting that 10 percent gain is simple. However, the facts are that only one state, Wyoming, showed a gain that was at least 20 percent more than the increase in the national average over the full 15 year period. Nonetheless, 11 states, or about 22 percent of states, showed more than 10 percent growth over the national average. It should be noted that in order to do this required that they grow annually by only about 0.4 percentage points faster than the nation’s 3.65 percent annual rate. Achieving small differences is actually difficult; for example Wyoming registered the highest annual growth rate of 4.67% over the period, only one full percentage point faster than the national average growth rate.

From an economic development perspective, however, achieving an average level is not unusual at all. Economic growth theory predicts that incomes per capita tend to converge to the same level, the average, under fairly simple assumptions. These assumptions include open capital markets, the availability of a common technology and the same saving rate, depreciation rate and population growth. A more modest form of convergence, called conditional income convergence, requires only the availability of common technology and results in the same long-run average growth rates across

countries, but not levels. Barro and Sala-i-Martin (1992) explain these differences in more detail, but the results are found in most textbook discussions of economic growth theory.

Chart 1
Indiana income per capita has been relatively low for the past 25 years



There is ample evidence of convergence in the level of per capita income for states in the US or Western Europe, though the evidence across countries is less uniform. For example, Barro and Sala-i-Martin (1991, 1992) find evidence for convergence for productivity, or output per person, in eight major sectors of the US economy and per capita income in US states, as well as for 73 regions of Western Europe since 1950. Bernat(2001) argues, however, that the convergence process for US states may have ended in 1979. Convergence is often estimated to be quite slow, about 2 per cent per year in many studies. Evans (1997) uses a different statistical approach and finds that convergence occurs and does so somewhat faster, with gaps in income declining about 15.5 percent per year for US states and 5.9 percent per year for countries. Either way, Indiana’s near 10 percent gap in per capita income could easily be closed in 15 years without any extraordinary effort, despite the apparent failure to close after about 25 years. There are other factors that could impede convergence, however. Several are indicated by proponents of conditional convergence, such as Hall and Jones (1999) and Mankiw et al. (1992). Any number of factors that are not easily arbitrated, including immobile factors such as land scarcity or taxation, could lead to difference in the levels of per capita income across areas. For example, the median price of housing, according to the Office of Federal Housing Enterprise Oversight, has risen about 1.6 times as since the much as the national index since the data series began to be computed in 1975. National Association of Realtors data show that the national median price house, at \$219,600, was

1.77 times the comparable median price house in Indianapolis in 2005. This difference in the cost of living is likely to result in a large compensating variation in wages and income that could easily account for the 10 percent gap in per capita personal income in Indiana that has persisted for most of the past quarter of a century. If so, there is in fact no gap to close. All of the measured gap could be due to the fact that housing in Indiana is considerably cheaper than in the rest of the nation and competitive labor markets have reflected that in lower wages necessary to attract and hold workers in Indiana. In that case, no closure in the observed gap could be expected, despite the best efforts of the IEDC. The observed difference in the national and Indiana per capita personal incomes could simply and completely represent a lower cost of living for the biggest piece of expenditures in the typical household budget, housing. In this event, conditional convergence would have taken place in measured per capita personal income and correctly measured real per capita income in Indiana would have held quite close for many years.

¹In the chart, Alaska and Hawaii are added in 1950 and the District of Columbia, normally number one in the ranking, is included. At least since 1957 the effect is to push Indiana's rank up by three spots in the comparison to other 48 states.

Additional Reading

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Hall, Robert and Charles I. Jones, "Why Do Some Countries Produce So Much More Output per Worker than Others?" *The Quarterly Journal of Economics*, (February, 1999), pp. 83-116.

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