

PLUM CREEK AND THE CHALLENGE PRESENTED
by the
ECONOMIC ELEMENT OF THE COMPREHENSIVE PLAN

David Denslow¹

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¹ This research, as is the case with everything I have done related to Plum Creek, is pro bono.

THE CHALLENGE POSED BY THE COMPREHENSIVE PLAN'S ECONOMIC ELEMENT

I. INTRODUCTION

The economic element of the comprehensive plan the county adopted in 2011 has a single overarching goal: “Enhance the economic prosperity of all citizens of Alachua County and expand and diversify the county’s tax base.” (p. 377) The element recognizes that economic prosperity and expanding the tax base are so closely entwined that they form a single goal. The link is tight in all Florida counties and especially in ours. With no income tax, in Florida the ad valorem property tax is a large share of total state and local revenue, 40% compared to 33% nationally. Though raising the sales tax to 8% or extending it to services would cause only small economic distortions, the legislature is unlikely to enact either one.

In Alachua county, as we know well, an unusually large share of just value is not taxable. A large share of property is untaxed because of the UF exemption. Additionally, house values are lower here than in other urban counties in Florida, with the result that the homestead exemption takes a large bite out of assessed value. Economic prosperity would both dampen the force of the UF privilege and, by raising home values, dilute the weight of the homestead exemption. As a result, with any given millage a higher level of service would be possible.

This attachment does not dwell on the budget, which is handled formally in a separate section. Instead it focuses on the opening part of the goal of the economic element: “Enhance the economic prosperity of *all* citizens of Alachua County ...” [emphasis added]. This as the challenge posed by the economic element as national (indeed global) and state trends are interacting with our local economic structure in a way that is causing the county’s median wage growth to almost disappear. This is true both in an absolute sense and relative to the rest of the country.

Moreover, children raised in low-income households in Alachua county find it even harder than those in 89% of the rest of the United States to rise above their households’ family income ranks. This low intergenerational income mobility has been a problem for some time—the “East Gainesville” problem, though it is also present in other residential areas segregated by income. It is measured by mobility from one household income quintile to another. The movement from quintile to quintile likely has remained stable over the past several decades. It has become more salient, however, because the quintiles have spread farther apart. The income ratio of the top 20% of households to the bottom 20% has risen since the early 1980s. Being stuck in a lower quintile is a larger penalty than it used to be. Figuring out how to provide opportunity for low-income children matters even more now.

External causes of these outcomes are chiefly the wage polarization that is occurring nationally and the restrictions on state funding and tuition revenue as well as on national research funding for our major industry, education. So far our second largest industry, medical care, has continued to thrive. Even that industry now faces greater uncertainties than at any recent time. We must deal with these issues not only for residents of Alachua county but, for our less-skilled residents in particular, for the entire commuting zone for which Gainesville is the labor market locomotive. Being in the same labor market, we cannot uncouple to advance while leaving them behind. That labor market area adds

Bradford, Dixie, Gilchrist, Levy, and Union counties. As a group, they have about half the population of Alachua county. Since they are quite poor, adding them doubles the size of the unskilled labor market.

Commuting zones are imperfect measures of labor markets. Some people from Clay, Putnam, and Marion counties work here, while some from our CZ work in Jacksonville, Lake City, or Ocala. In spite of the imprecision, there is a point to be made. Less-skilled workers tend to be more tied to a local area than are, say, college graduates, who more readily move nationally. Consequently wages for the less-skilled workers tend to seek a level within their local market. Wages and opportunities in Alachua county are not going to rise much above those in the Gainesville CZ. The actions needed to tackle the “East Gainesville” problem effectively are twice as large as they would be if Alachua were an isolated labor market, which it is not.

II. BRIEF DISCUSSIONS OF SEVERAL ISSUES IMPLIED BY THE ECONOMIC ELEMENT

The following pages will document these two issues—wage stagnation and intergenerational immobility—in turn. First, however, I note that in addition to its single major goal, the economic element of the comprehensive plan has six objectives and 43 policies, which we do not want to ignore. Instead of treating them sequentially and in detail, in this section we touch briefly on some of the specific issues they raise.²

A. Pay competitive wages for all public employees and a living wage for the least skilled among them

More revenue makes it feasible to grant warranted raises without layoffs. Expanding the property tax base, by diluting the effect of the exemption of the University of Florida, in addition to permitting higher pay for public safety and other county personnel, would allow the county to help the district’s public schools, which are underfunded relative to the nation because of the constraint imposed by the Florida Education Finance Program. As a recent example, by funding on-school officers, the county could add to the resources of the School Board to raise teacher salaries, now among the very lowest in the country. Other complementary programs that would benefit schools could be implemented through the libraries, parks and recreation, roads, public health, information services, and class presentations by county staff.

More subtly, growth in employment allows the county to lift its salary *schedule* even with no change in average pay. Most public salaries rise with seniority. The more rapid the growth of public employment, the larger the share of employees at the beginning of the pay schedule. That is especially true for teachers, who though employees of the school district, are important to the county as well. Aside from small local option taxes, the school district’s budget is constrained by the Florida Education Finance Program. Moreover, it must hire enough teachers to meet the requirements of the Class Size Amendment. That leaves little pay flexibility. If the number of FTEs grows, however, it can hire more junior teachers. Empirically, Florida districts growing by 2% a year (for example) have higher teacher pay schedules than those growing 1% a year or not at all.

B. Encourage Downtown Gainesville

Commercial development near the I-75 exits took business away from downtown. Will the development of East County do the same? That depends on the type of development. Furniture outlets (such as department stores) along I-75, for example, competed with those downtown, taking customers from them, as did most of those providing goods and services to local customers. Though furniture stores, automobile dealers, and drug stores and other retailers may collocate to a degree, they compete for local customers.

Firms that sell to national and international markets, in contrast, enjoy agglomeration economies that overwhelm their competition with each other. These agglomeration economies include thicker labor markets, exchange of ideas, and shared specialty suppliers. Portland, Oregon, is an example. Hillsboro, a smaller city 15 miles away, attracted Intel to set up a campus on Hawthorn Farm. Intel later opened two more campuses and now employs 16,000 people. Because of agglomeration economies, Portland benefited along with Hillsboro and the area, with over a thousand small tech firms, has become known as Silicon Forest.³

Besides the usual agglomeration economies, downtown Gainesville would be helped by (1) being in a county with a broader tax base, (2) a local airport with more destinations and more frequent flights, (3) a stronger UF, (4) more local cultural and dining choices, (5) better chances of finding good jobs for both partners of a skilled couple, and (6) more job opportunities in case a start-up folds. The right kind of development in East County would add to all of these.

C. Safeguard the Environment

Richer counties, unless their wealth is created by environmentally destructive industries, tend to be better stewards of nature. Technically, the income elasticity of demand for caring for the environment is positive. There are two additional considerations. First, new residents of Alachua county, if they did not come here, would have required energy and water somewhere else. Second, Alachua county has 559,000 acres, of which Plum Creek plans to develop less than four percent. The Gainesville CZ or labor market has 2,290,000 acres. The boost to average income would increase the public resources for stewardship.

Examples of how this could be done include county sponsorship of solar power, demand management subsidizing more efficient use of power and water, very recent technology using natural monolayer films to reduce evaporation from surface water, use of tax rebates to encourage xerographic landscaping, and planting flora along roadways to improve filtering of pollutants.

D. Improve Local Air Service

You might expect that a 10% increase in population would boost local air travel by 10%. In fact, the best estimate is 25%.⁴ There is a feedback effect. A 10% increase in population in the GNV service area directly raises air travel by 10%. That results in some combination of more frequent flights and more destinations. If there is enough competition, higher load factors may even result in lower fares.

³ The Portland MSA has 2.3 million residents, enough to support light rail transit.

⁴ This figure is based on national estimates for all urban areas with populations between 100,000 and 500,000, using Tobit regression applied to data for 2001 through 2012, controlling for distance to neighboring hubs. The paper, with Ben Miller, has received a revise and resubmit from a national transportation economics journal.

With more frequent flights, more destinations, and possibly lower fares, more people fly locally instead of driving to MCO, JAX, or TPA or to their destination. That process continues until the increase in embarkations exceeds 20%. There are similar feedback effects from higher incomes or from firms whose employees travel often.

The type of development matters. The forthcoming projections by the Bureau of Economic and Business Research at UF show limited growth of total population and a strong increase in the retired population of Alachua county from now to 2030. If that happens there is a chance that air travel and consequently the flight frequency and the number of destinations will fall. Retirees of course travel some. That is overmatched however by how they change the structure of local industry, away from sectors that provide national and global products and therefore fly often to those that provide local services and whose employees thus seldom fly on business.

There is another feedback effect. Within driving range of Orlando, Jacksonville, and Tampa, Alachua county businesses are not destitute of good air connections. Nonetheless direct flights to tech centers such as Dallas or Chicago could help attract and retain tech firms, which in turn would induce still better air service.

E. Strengthen Our Largest Employer

The advantages of developing East County the right way would be the same as those for downtown Gainesville, except even stronger. Hiring top faculty is easier when there are good local jobs for trailing spouses. Having more local tech firms means more flow of innovations into products, more local flights, and more local culture. Recent experience suggests that landing global corporations may even boost state funding for UF.

F. Maintain Infrastructure

It has been estimated that Alachua county has a \$380 million backlog of road maintenance. Though a one-cent local option sales tax would raise \$30 million a year, such a tax appears to be politically infeasible. That makes it all the more important that construction in East County would boost revenue, as would the increased economic activity later. Development would add to infrastructure needs, but under proposed plans by less than the additional revenue, especially since the developer would pay directly for infrastructure required by development.

With the changing global climate, no one knows what infrastructure maintenance will cost in coming years. Though the impact will surely be less than in coastal areas of Florida, our infrastructure was built for the historical climate, not the future. We do not know, for example, how the coming changes will interact with our particular soils and karst topography. To reduce the risk of being overwhelmed later, we must enter this period of uncertainty with our infrastructure well maintained and we must develop a broad tax base.

As to infrastructure specific to new development in the Plum Creek area, the county is wise to be concerned about the risk of over over-construction of infrastructure. Using customary employment to floor-area ratios, it is estimated that the at build-out, the development could create some 30,000 jobs, and that there would be a substantial number of residential units. While the analysis of historical population growth in counties across the country, and especially in Florida, shows that there is a strong chance that such job growth, an extra 600 a year, will occur if the county, the University of Florida, Santa

Fe College, the incorporated areas and private groups such as the Chamber of Commerce work together with Plum Creek, no one can guarantee that it will happen.

For that reason, the county would be wise, in our view, to work with Plum Creek to use up-to-date, perhaps stochastic dynamic programming, along with the deterministic models recommended by FDOT, in order to gain a different perspective on the timing of development and infrastructure. If infrastructure were not “lumpy,” there would be no problem. Development and infrastructure could be put in place together, with no risk. Given that infrastructure is lumpy (you don’t put in half a fire station), it become optimal to allow the level of service to decline somewhat, then exceed the standard for a time until development catches up. The county is wise to raise the issue of risk, and we urge the county and Plum Creek to work together to analyze it using modern software.

Such methods also ease the analysis of infrastructure needs under varying technological scenarios. A major example is roads. In contrast to the many arterials in the western portion of the county, those in the eastern part do not now suffer major congestion. That could change in twenty or thirty years, on the way to build-out. With a national scarcity of road funding and with congestion a growing problem in most major areas, however, both political and technological changes are occur. One of the political changes is encouraged by new technology, the easier metering of where cars travel, which enables non-disruptive congestion pricing. The arterial along the northern boundary of the Plum Creek area, for example, presents an ideal situation for congestion pricing, because of the absence of alternative routes. Other new technology is harder for the mind to grasp. Driverless cars by Google are now a reality, and their safety will soon exceed that of human drivers. That raises the possibility of inexpensive and flexible minibus transit that would prevent the occurrence of major congestion in the eastern part of the county.

With the respect to budgets more generally, Alachua County, would be wise to look at a fully comprehensive budget, which would include its pension assets in the Florida Retirement System, with varying assumptions about the timing of recessions and changes in trends. During the recent recession the county saw its revenue loss cushioned by the peculiar dynamics of the housing boom coupled with Save Our Homes (taxable values rose even as home prices plunged). In the next recession, that will not happen. A broader and more diversified economic base would allow the county enough slack in its revenue to have a rainy day fund as a hedge against recessions, instead of being in a hole, as it currently is, because of its inability to maintain infrastructure.

G. Alleviate Spatial Mismatch

Spatial mismatch occurs when it is difficult for those living in a low-income residential area to find and commute to good jobs. Most of the jobs for which the youth of East Gainesville are qualified are distant, and they cannot afford cars to reach them easily. Buses help but providing more destinations and reducing headway are expensive. Jobs near Hawthorne would still be distant from East Gainesville, averaging perhaps 15 to 20 miles away. How could that reduce spatial mismatch?

Spatial mismatch is a complex phenomenon. Less-skilled youth in East Gainesville compete with students seeking part-time employment and with residents of Levy, Gilchrist, and even Dixie counties for jobs downtown and near I-75. Compared to those competitors, residents of East Gainesville would be

closer to Hawthorne. More generally, any demand for less-skilled workers anywhere in the Gainesville commuting zone would help residents of East Gainesville. With growth, the competition from college students and the from the CZ overall would be diluted.

The extent to which spatial mismatch is a cause of low employment in poor areas of cities is a matter of contention in the academic literature. Alachua county, however, has a more specific problem. Less-skilled workers in East Gainesville and elsewhere in our employment commuting zone face competition from an unusually large pool of people seeking jobs. The competition in our commuting zone is severe because (1) overall, the commuting zone is poor, with a large proportion of unskilled workers, and (2) perhaps half of the college students seek part-time jobs that do not require a high school diploma. They have good cognitive and interpersonal skills and are willing to work for low wages. That makes it hard for local high school graduates and dropouts. In a place with few manufacturing jobs, their situation is tough.

Plum Creek presents a boost for the county and indeed for the region at an opportune time. External forces such as polarization of the national labor market and reduced real funding for higher education threaten us with long-term relative stagnation. We are in the middle of a large pool of low-skilled workers who have limited opportunities and we are constrained by state educational funding that is among the lowest in the nation. In contrast the knowledge economy presents a community with a major research university and an entrepreneurial spirit with a chance to “Enhance the economic prosperity of all citizens” Plum Creek, with its assembled land and desire to create a showcase development, provides a unique opportunity for a community whose values include helping its low-income residents while serving as good stewards of the environment. Just as the local leaders who had the vision to bring the University of Florida to Gainesville could not have known all the implications of their action, so too it is not now possible to know the future.

What we do know is that Plum Creek presents us with a chance to increase the likelihood that our future, rather than stagnant, will be prosperous for all our residents. That is especially true of our low-income families, who are the least mobile both economically and geographically. What we can know with certainty is that Plum Creek cannot wave a magic wand that solves all our problems. Plum Creek cannot solve the problem of poverty, though it can help. Plum Creek cannot make our schools rank among the best in the nation, though it can help move them in that direction. Plum Creek cannot by itself preserve our environment, though it can develop its land in a way that is environmentally sound and still boost the revenue the county needs to do its part.

The more we can do now to improve our schools, mend our roads, reduce spatial mismatch, encourage Innovation Square, boost local businesses, heal our springs, create a more attractive urban center, maintain UF’s awareness of the importance of its local base ..., the list goes on, the more we help Plum Creek and the better able Plum Creek will be to help us. Of course our interests and those of Plum Creek do not match perfectly, as was the case decades ago with Gainesville and UF. We have, however, a large common interest. To complete globally, we must collaborate locally.

III. WEAK MOBILITY OUT OF POVERTY IN THE GAINESVILLE COMMUTING ZONE

The economic element makes sure that the effort to reduce poverty is not neglected. An explicit objective of the element is to “expand economic opportunities and reduce poverty.” The “State of the

Alachua County Economy” report presented to commissioners each year is to include, among other headings, “A report on the effectiveness of the economic development program in improving the economic well-being of the unemployed poor, including those not covered by general unemployment statistics.” (p. 381) The entity charged with implementing the plan is to report on “barriers to employment and economic prosperity (e.g., transportation, child-care, education, employability, and health care) and ways to overcome those barriers.” (p. 379) The poverty issue is often referred to as the “East Gainesville” or “East County” problem. though it is actually geographically more dispersed and broader.

The problem is indeed much broader geographically and should be analyzed in terms of the entire labor market in which Gainesville’s low-income residents compete, known as the Gainesville commuting zone. But first note that since children of low-income residents are more likely than most to stay where they were raised, the current economic conditions of Alachua county’s young adult residents, excluding university students from out of town, depend on how successful they and their parents were in bringing them from childhood to adulthood. A recent major study by four economists, two at Harvard and two at Berkeley, enables us to tell.⁵ The authors, Raj Chetty and others, took advantage of big data capabilities to link tax returns for parents of children born in the years 1980 through 1984 to family income over a five-year period when those children were around 16 years old, provided at least one parent was in the age bracket 30 to 55 (over which interval family incomes are fairly stable) and then to their children’s family incomes around age 30, up through the year 2012. The authors’ interest is in intergenerational mobility. Two of their mobility measures are available for counties. The first they call absolute mobility: How well do children in families in the bottom half of the *national* family income distribution who lived in that county at age 16 fare at age 30? The children are linked to their county of residence at age 16 no matter where they live at age 30. A child from High Springs could live in Los Angeles at age 30 and still be linked back to an Alachua county childhood.

With respect to absolute mobility, Alachua county is also behind the nation. Not surprisingly, children from Alachua county have family incomes around age 30 only 85% of the national average for their peers. After all, their parents had family incomes only 80% of the national average. Chetty and his co-authors are after a more subtle question, however. Naturally there is some intergenerational mobility, a convergence toward the mean. The question is how did Alachua county youth do controlling for the relatively low distribution of income of their parents. The answer is, not well. Even controlling for the distribution of parental income, Alachua county’s youth fared 10% less well at age 30 than their national peers.

The second measure available for counties is relative mobility, or how independent are people’s family incomes at age 30 of their parental family incomes 14 years earlier, when they were 16. On that measure, Alachua county scores 11% worse than the national average. In sum, somewhat surprisingly

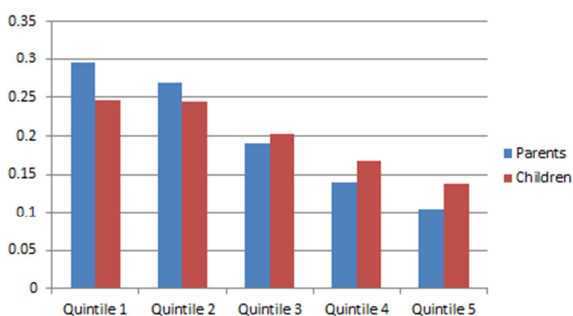
⁵ Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, “Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States,” National Bureau of Economic Research, Working Paper 19843,, January 2014, plus multiple online data appendixes in Stata format. Chetty and Saez are the 2013 and 2009 winners of the Bates Clark award, given annually to the best American economist under forty.)

for a county that hosts a major educational institution, Alachua county does about 90% as well at preparing its own youth for adulthood, at least in the narrow sense of household income at age 30. Of course, this is history. Those aged 30 in 2012 were 16 in 1996, now 18 years ago. But the correlates of poor parent-child income rank transitions are what you would expect, and it seems unlikely that as a group they have improved for Alachua county relative to the U.S. over the past two decades. They are (1) residential segregation by income and the associated limited access to jobs, (2) high income inequality, (3) poorly funded public schools, (4) low social capital indicated by low voter turnout rates in local elections and low participation in community organizations, and (5) unstable families. In sum, it appears likely that Alachua county is still below the nation in preparing its native children for jobs, even conditional on its relatively low household income.

Chetty and his co-authors reserve their most thorough analysis for commuting zones, constructed by the U.S. Department of Agriculture to reflect unified labor markets. They assign youth to one of 741 commuting zones nationally according to where they lived at age 16. The Gainesville CZ adds Bradford, Dixie, Gilchrist, Levy, and Union counties to Alachua. That aggregation boosts the population from 250,000 to 370,000 and enlarges the area from 874 square miles to 3,578 (alternatively, from 559,000 acres to 2,290,000 acres). CZs are not themselves perfect matches to labor markets. Gainesville draws from parts of Putnam and Clay as well, though given current commuting patterns those counties belong in the Jacksonville CZ. The Gainesville commuting zone represents the low-skilled labor market for which Gainesville is the focal point.⁶

The chart below shows the income distribution of households with at least one parent aged 30 to 55 in the late 1990s for the Gainesville CZ. It also shows the household income distribution of children around age 30 who were in the Gainesville CZ at age 16, no matter where they lived around 2012. The distribution is by quintiles. If the distributions were identical to the nation's, there would be 20% in each quintile. Instead, they are heavily skewed toward the lower quintiles in both cases, though there is regression toward the mean. The skew is less for the children than it is for Gainesville CZ parents.

GVL Commuting Zone
66% of Parents, 59% of Kids < Median

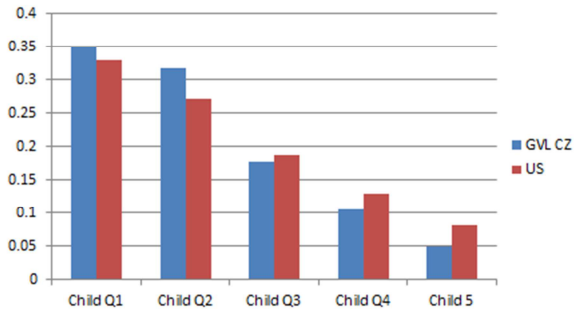


Chetty et al., National Bureau of Economic Research, January 2014

⁶I often use MSA instead of CZ data because figures for CZs are usually harder to come by.

At every *national* income quintile, however, the children of Gainesville CZ parents have done less well on average at age 30 than their national peers who were in the same national income quintiles. That is true of all five quintiles, as shown in the five charts below.

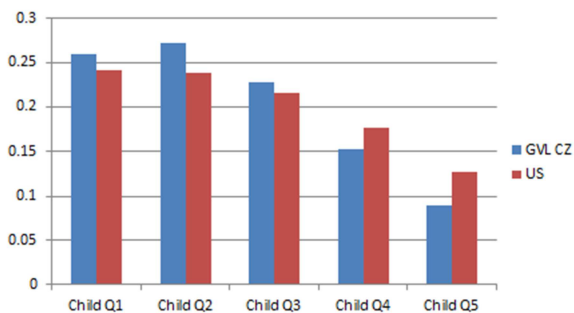
Parents in Lowest Quintile Child Share by Quintile at Age 30



From Chetty et al., January 2014

The concepts the chart above presents are complex as well as important. It is worth repetition to clarify what it shows. The pairs of bars group children who at age 16 lived with their parents in the Gainesville commuting zone (blue bars) or anywhere in the United States (red bars) whose parents' household income was in the lowest national income quintile. In the Gainesville CZ, 35.0% of such children when they reached age 30 were in households in the bottom household income quintile of all people age 30 around 2012, as shown by the blue bar at the left. Moving to the right, the subsequent blue bars shows that 31.8% reached the second quintile, 17.7% the third, 10.5% the fourth, and 5.0% the fifth. Nationally, 33.0% remained in the lowest, 27.1% reached the second, 18.8% the middle, 13.0% the fourth, and 8.1% the top. One aspect of the "East Gainesville Issue" more broadly interpreted is that a child raised in the lowest income quintile had a 62% better chance of reaching the top rung of the ladder if raised *outside* the Gainesville CZ. ($8.1\%/5.0\% = 1.62$.)

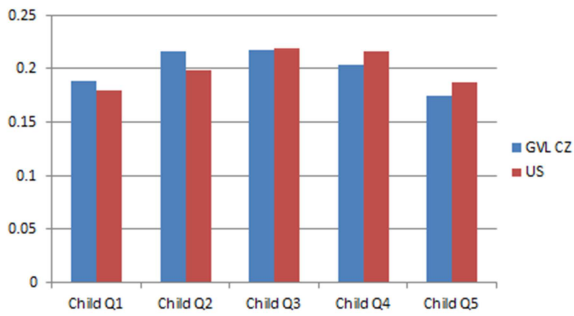
Parents in Second Quintile Child Share by Quintile at Age 30



From Chetty et al., January 2014

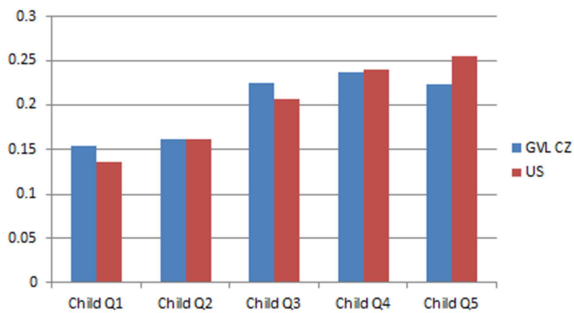
For children raised in households in the second income quintile, the chance of reaching the top quintile were $12.8\%/9.0\% = 42\%$ better if raised outside the Gainesville CZ. Outside the Gainesville CZ the odds of reaching the top were 7% better for the middle quintile, 14% better for the fourth, and 7% better for the top.

Parents in Middle Quintile
Child Share by Quintile at Age 30



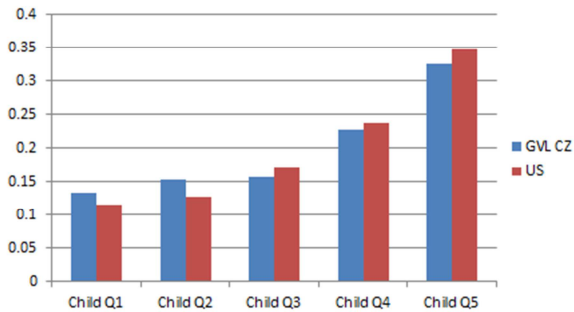
From Chetty et al., January 2014

Parents in Fourth Quintile
Child Share by Quintile at Age 30



From Chetty et al., January 2014

Parents in Top Quintile Child Share by Quintile at Age 30



From Chetty et al., January 2014

While the five counties—Bradford, Dixie, Gilchrist, Levy, and Union—add less than 50% to Alachua county’s population, as noted earlier, they almost double the size of the less-skilled labor market. The income of households with children (and with parents aged 30 to 55) in the other five counties averages only 60% of that of Alachua county and less than half that of the United States. When seeking jobs, residents of East Gainesville are competing not only with college students working part time but also, and just as importantly, with people from the other five counties, most of whom are from the bottom two quintiles of the national income and wage distributions.

Many workers residing in Gilchrist and Levy counties join the majority of UF and SFC students in having easier access than do residents of East Gainesville, especially those without cars, to the places in Alachua county where the jobs are. Wages, like water, seek a level. We cannot think of Alachua county as an isolated labor market. When the county adopted goal of the Economic Element of the 2011-2013 to “Enhance the economic prosperity of all citizens of Alachua county” it accepted a large challenge, perhaps twice as large as it would be if the county were an isolated labor market. To rise to the challenge, we need to think big.

IV. Developing the Plum Creek Area Will Help the Economy

Though informed observers are well aware that Alachua county has a serious poverty problem and that creating more jobs (along with more funding for early childhood interventions, pre-school education, and health programs) is the best way to combat it, that leaves the question of whether that can be done without developing a jobs center in the eastern part of the county. Isn’t there plenty of industrial land already set aside for industrial and commercial development that, even if not immediately for sale, is likely to become available over the next thirty to fifty years?

To that issue, I have a few observations. First is the importance of agglomeration. We will not suddenly have enough jobs to alleviate poverty. The poor we will always have with us. But as the demand for labor rises, wages increase overall and especially for those with fewer skills. The increase is especially strong at the lower end of the wage scale because less-skilled workers are precisely the ones who are less mobile across cities. A scarcity of less-skilled workers is likely to be met more by rising wages and less by in-migration.

How does agglomeration fit in? Most importantly through the exchange of ideas among skilled workers in high-tech sectors. The exchange of ideas raises the productivity of people and firms producing goods for export, for sale beyond out county. Each such high-tech job, according to recent studies by Enrico Moretti (professor of economics at University of California, Berkeley and author of *The New Geography of Jobs*), creates an additional four jobs. Empirical studies in urban economics show that cities are diverging from each other in their wages. Wages are rising in larger cities with a high proportion of college graduates and falling in others. The presence of the University of Florida gives us the opportunity to join that group, in spite of our small size.

But UF cannot do it alone. The presence of a large landowner with an incentive to attract research-oriented firms and high-tech industry offers us an important opportunity. Plum Creek has, for example, undertaken a census of technology resources at UF that is more extensive than the university itself has ever conducted. Advertising of the type being done by Innovation Square, Progress Park, and the Chamber could be supported on a much larger scale by Plum Creek. For an example of such advertising, not to mention a beautiful research park development that maintains attractive wetlands and benefits the local school system and post-secondary educational institutions, consider Medical City at Lake Nona in Orlando, home to the Sanford Burnham Institute, the UCF College of Medicine, a VA hospital, and Nemours hospital.)

Agglomeration also creates a more flexible labor market. Start-up firms offer employees a chance of riches but an even greater change of unemployment. Many Grooveshark employees, for example, are searching for work elsewhere. With a larger tech labor force locally, more of them would find it attractive to remain here. As another example of this type of benefit from agglomeration, when Banyan moved its lab operations to California, some of its employees were able to find other jobs in this area. High-tech employees are more likely to come to an area if the job market is thick, reducing the chance that they will have to move if a start-up folds or relocates.

Through agglomeration economies, the attraction of research and manufacturing firms to the eastern part of the county will increase the density of development in the central part of the county. The ability to develop a beautiful and sizable campus in the east will attract firms that would not be industries in scattered development elsewhere. They will in turn hire services—printing, accounting, legal counsel, repair, engineering consulting, and other—from firms that are fine with infill sites. That has happened in a number of places. As one example, Intel, welcomed by Hillsboro county, not far from Portland, built three campuses there. As a result, hundreds of small high-tech firms were attracting to the area, and Hillsboro now has a median family income of \$57,000 and a crime rate half the national average (and a little over half the Oregon average). The point here, however, is that the three Intel campuses in Hillsboro added to employment growth in Portland, helping bring about the density that enables fixed-rail regional transit and other urban amenities. Portland had the good fortune to have growth boundaries that did not preclude Intel from building attractive locations, where there was assembled land, in a nearby county.

Finally, a jobs center in the eastern part of the county will be accessible to a significant supply of affordable housing, thereby increasing the effective supply of affordable housing in the region. The methodology modified by the North Central Florida RPC (from that developed by another RPC) could be used as a baseline guide, with full awareness, however, that income distributions and building technologies are likely to change. More fully, housing is best thought of as housing-cum-access. Most

of the housing in the eastern part of the county is certainly affordable, by most criteria. The problem is accessibility to jobs. Meanwhile, housing in the western part of the county has access to the jobs created by commercial development that resulted as I-75 refocused Gainesville from downtown to the I-75 corridor. That housing has relatively good access to the western corridor, but congested access, often even during off-peak afternoon hours, to downtown.

Empirical studies show that increasing the degrees of development, from say 180 degrees to 270, enables a central city area to prosper because of the improved affordability of housing-cum-access. Major cities in the central portion of the country often have the advantage of wide access because of intersecting interstate highways. Alachua county lacks that, but does have the advantage of CSX, Route 301, and two other major and underutilized arterials serving the east part of the county. That provides the opportunity, along with agglomeration economies, of creating a thriving areas in the central and eastern parts of the county, not just the west.