Child Care Works Campaign
Illinois Action for Children Research Dept.

illinois action for children

ESTIMATION FOR CHILD CARE CENTERS

We designed the report *How We Contribute to the Local Economy* to help a child care center's staff and its surrounding community better understand the center as an economic contributor. The report displays key elements of a center's impact on its community. This is important because many people still have a habit of thinking of child care as an absorber of community resources rather than as a grower of resources.

At the same time a center's operators might have a challenge collecting the information they need for the report. Each director must collect the center's financial numbers and other information that can be difficult even to very organized and business-savvy center operators.

In designing the report we tried to balance the need for accurate information against the difficulty of collecting it. This is why in several places we offer to estimate a center's numbers. In the interest of accuracy and completeness, we hope that no center will need to use our estimation. As realists, however, we know that the difference between a center having its own report and not having one may be our being able to offer a reasonably good estimate for a number that is difficult to obtain.

In preparing estimates, we have been guided by two principles. First, we attempt to estimate a number in the middle rather than at an extreme high or low. If we miss the middle, however, we want to *under*estimate a contribution rather than overestimate it. In particular, we use either a low average or a minimum to safeguard against exaggeration.

- *For estimating some numbers, we use an average for Illinois child care centers of the same type and size as the center reporting.* For example, we estimate a center's annual revenues and expenses this way.

- *For estimating other numbers we use minimums.* For example, since a center cannot usually tell us more about the incomes earned by the parents it serves, we use the minimum wage to represent a parent's income.

Below we report details of our estimation processes.

Center Receipts and Costs

A center's receipts (or gross revenue or gross income) and its costs (or expenses)

If a center cannot supply its actual revenues or expenses, we use data collected for the state's FY 2009 survey on child care staffing and salaries. (See **Sources**, below.)

The survey's authors average pretax revenues and costs for eight types of child care centers. The Illinois Network of Child Care Resources and Referral Agencies (INCCRRA) kindly gave us additional information that allowed us to break down revenues and costs by the size of the centers, as measured by number of staff the center has. (We should note that we, not INCCRRA, are responsible for the way we used this data.)

These numbers are now two years old and are probably lower than today's average center revenues and costs (per staff member). Nevertheless, since we are trying to estimate low averages, we have not adjusted the number for inflation.

Our estimate of a center's revenues or costs, then, is based on the number of a center's full-time staff (or full-time equivalent staff) and the type of center it is and the 2009 average for that type of center and number of full-time staff.

Center Salaries or Wages

Center employees support businesses by spending their wages and salaries locally and support governments by paying taxes. If a center cannot supply its total payroll, we are prepared to estimate that based on the number of staff and an average center salary. We derived the average center salary from the same 2009 report cited in the previous section.

Taxes Paid by Center

Paying taxes contributes to the community by helping to finance government services.

There are many sorts of taxes that a center might pay. Not-for-profit centers do not pay taxes on income (or profit) and may generally be exempt from paying sales tax or real estate taxes. For-profit centers must pay those taxes. We understand that most centers must pay employment taxes, that is, social security and Medicare taxes and state unemployment insurance. In addition a center may need to pay business taxes and fees. Taxes are also imposed on telephones bills and utility bills.

Obviously taxes are very complicated and it would be far better for a center to obtain and use its own tax records. Lacking that, we are prepared to estimate three types of taxes a center pays.

Sales tax: Sales taxes in Illinois vary widely. They depend upon locality and type of purchased. For example, while food purchases might be tax-free, purchasing other supplies may be taxed as high as 9.65 percent.

To estimate in the middle, we calculate taxes on all of a center's purchases at *4 percent*.

Income tax: If a for-profit center earns a profit or net income, we estimate the income tax it would pay using a national average effective tax rate of 18 percent of net receipts (or receipts minus costs).

Employment taxes: We estimate these just for social security and Medicare, or 7.65 percent of all wages and salaries.

A center will have to enter other taxes it pays if it wants to report its full contribution to the finance of government services.

Again, it is far better for a center to enter its actual taxes than for to use this rough estimate.

Full Purchases Effect

When a center receives payments for child care, it spends some of that money on materials, supplies and services. The businesses that receive these purchases themselves spend some of this money for additional goods and services from other local businesses. This process keeps going. In this way the original spending is *multiplied* in the economy. Economists call this a multiplier process.

The latest multiplier we have is 1.72 for the state as a whole.   This means, for example, that if a center receives one hundred dollars for new child care services, the ultimate effect will be $172 of new goods and services in the Illinois economy – the original $100 plus an additional $72. This is the multiplier we use to measure the full impact of a center's business activity in the Illinois economy.

Note: This multiplier is called an *output multiplier* or an *income multiplier* since it measures how receiving an income (the center's receipts) for producing an output (child care) ultimately affects other businesses' receipts in the Illinois economy.

Full Employment Effect

If a center hires ten new staff members, they in turn spend much of their new wages at other businesses. These other businesses in turn need to hire enough new employees to provide the new goods and services. In this way new employment gets multiplied in the local economy just as new receipts get multiplied in the previous section. [In reality these jobs don't come as whole jobs, but in a piece of a new job here, and piece there. You can think of this as a business adding hours and overtime to an employee's schedule, and perhaps eventually hiring a new employee.]

The latest employment multiplier we have is 1.20 for Illinois. This means, for example, that if a Peoria County center increases its employment by ten, it will have an ultimate employment effect in Illinois of those original ten jobs plus two more. (1.20 x 10 jobs = 12 jobs) This is the multiplier we use to measure the full local effect of a center's employment.

Taxes That Working Parents and Center Employees Pay

We assume that working parents and center employees pay the same types of taxes, notably income tax, employment tax (social security and Medicare) and sales taxes. They may also pay real estate taxes and other taxes. To capture all of these taxes, we calculate a low average rate of 18 percent of the parents' and employees' incomes.

Sources

Average receipts and costs:

Illinois Department of Human Services, Illinois *Salary and Staffing Survey of Licensed Child Care Facilities: FY2009*. Prepared by: Angela R. Wiley, PhD; Samantha King, MA; and Philip C. Garnier, PhD, Department of Human and Community Development, University of Illinois at Urbana-Champaign. Available at http://www.dhs.state.il.us/page.aspx?item=49144

The full effect multipliers:

The estimates for the impact of output and employment on further spending and employment are derived from the 2004 Illinois module of the Minnesota IMPLAN Input-Output model (SAM multipliers). Initially developed for use by the U.S. Forest Service, IMPLAN is now used in many fields. It relies on the same basic model structure and underlying economic data as the U.S. Department of Commerce Bureau of Economic Analysis Regional Impact Modeling System (RIMS).

Technically these multipliers should be applied only to small increases (or decreases) in a region's receipts and employment. Since a child care center is a small part of the regional economy, we treat its receipts and employment as new for the purpose of measuring its impact on business incomes and employment in Illinois.