The Economic Impact of Child Care Subsidies on Labor Force Participation in Nevada

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For many parents the decision to work is directly correlated to the cost of child care, which for many single parent households can be upwards of 20% of their income. (The Children's Cabinet, 2013) To assist with the high cost, the Federal Child Care and Development Fund provides subsidies to families with children up to age 13, living below 75% of Nevada’s median income. These subsidies help reduce the financial strain that child care places on parents by paying for a majority, if not all, of the cost. There are currently two types of child care subsidies, mandatory and discretionary. The mandatory subsidies are provided to parents actively participating in the New Employees of Nevada (NEON) program. The discretionary subsides are provided to working parents who need assistance paying for child care.

The reality is that under the current reduced funding levels, the majority of subsidy payments go towards New Employees of Nevada (NEON) participants. Low –income single parents are confronted with a financial dilemma; either continue working with a majority of their income going towards child care, or drop out of the labor force to stay home and care for their child/children themselves. Depending on a parent’s financial situation, it may be economically rational to leave the labor force and collect welfare if their current wage is not greater than their reservation wage, the minimum wage at which an individual will accept employment.

This paper looks at the relationship between child care subsidies and labor force participation by determining a parent’s reservation wage with and without child care subsidies. It also looks at the potential welfare savings, by estimating the number of one-parent families that would join the labor force if child care was fully subsidized.

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1 A single custodial parent with a child under age 6 years of age is exempt from participating in the NEON program if they can prove that appropriate child care is unavailable, unsuitable or unaffordable. (Nevada Department of Health and Human Services: Division of Welfare and Supportive Services, n.d.)
Methodology:

The following assumptions were made throughout the paper:

1. Reservation Wage: Total Welfare Benefits (Temporary Assistance for Needy Families (TANF) + Supplemental Nutrition Assistance Program (SNAP) + Housing and Urban Development (HUD))
2. If an individual’s potential salary less child care costs is greater than Welfare Benefits, the individual will typically choose to begin working.
3. If an individual’s salary less child care costs is less than or equal to Welfare Benefits, the individual will likely choose to remain on welfare.

We did not factor other externalities into the individual’s reservation wage such as: utility (advantage or fulfillment a person receives from consuming a good or service), cost of food, transportation, etc. These externalities change on an individual basis, but would result in an increased or decreased reservation wage.

All calculations were based on one child single parent homes. According to the Nevada Kids Count 2013 Data Book, slightly more than 90% of those receiving subsidies are one parent homes and have one or two children. (p. 51) Additionally, for the purposes of this analysis we assumed the child was 4-years old\(^2\) and the family resides in a one bedroom home in Las Vegas – Paradise Valley.\(^3\) Actual figures will vary depending on the age of the child in care, the associated costs of care and variations in housing costs.

Findings:

We were able to estimate the net welfare savings by calculating the number of parents who would enter the labor force if they received a child care subsidy. According to our calculations, there would be a net savings of $3.08 for every $1.00 subsidy provided because of the decrease in welfare recipients. This is a based on our assumption that a parent would choose to enter the labor force if their potential salary was greater than their reservation wage.

As can be seen in Table 1, the average welfare cost for a family consisting of one parent and one child was $1,408.14 per month.

<table>
<thead>
<tr>
<th>Welfare Benefit</th>
<th>One Parent – One Child Family</th>
<th>One Parent – Two Child Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANF(^1)</td>
<td>$318</td>
<td>$383</td>
</tr>
<tr>
<td>SNAP(^2)</td>
<td>$247.14</td>
<td>$370.71</td>
</tr>
<tr>
<td>HUD(^3)</td>
<td>$843*</td>
<td>$1038**</td>
</tr>
<tr>
<td>Total Monthly Benefits</td>
<td>$1,408.14</td>
<td>$1,791.71</td>
</tr>
</tbody>
</table>

\(^*\)For a one bedroom house in Las Vegas – Paradise area  
\(^**\)For a two bedroom house in Las Vegas – Paradise area  
\(^1\) (Nevada Department of Health and Human Services: Division of Welfare and Supportive Services, n.d.)  
\(^2\) (The Henry J. Kaiser Family Foundation, n.d.)  
\(^3\) (U.S. Department of Housing and Urban Development, 2014)

\(^2\) The average cost for full-time care in a center for an infant and 4-year-old are $10,095 and $8,208 respectively. (Child Care Aware of America, 2014, p. 65) For the purposes of this paper the least cost option is used.

\(^3\) For the basis of this paper, we assumed a one parent- one child family would live in a single bedroom home.
A parent’s reservation wage was calculated by dividing a family’s total monthly welfare benefits, $1,408.14, by the amount of hours a typical full-time employee would expect to work every month, 176, (working 8 hours a day for 22 days of the month) equaling the hourly paid wage required to match the parent’s welfare benefits. For a one parent one child household, a parent must earn more than $8.00 an hour (after taxes) to enter the workforce, assuming they incurred zero cost for child care.

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\frac{1,408.14}{176 \text{ hours}} = 8.00/\text{hour}
\]

If a parent sends their child to a child care center, it would cost them an average of $3.88 an hour\(^4\) decreasing their net pay to $4.12/hour (8.00/hour minus $3.88/hour for child care). A salary of $4.12/hour would equal less money than they would theoretically earn by being on welfare at $8.00/hour. In this real world scenario, it would be in the parent’s best interest to remain unemployed unless their salary was above $11.88/hour (after taxes) to cover the additional cost of child care ($8.00 plus $3.88, the cost of child care), as seen in Table 2.

**Table 2: Parent’s Reservation Wage**

<table>
<thead>
<tr>
<th>Weekly Hours Worked</th>
<th>Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$8.00</td>
</tr>
<tr>
<td>168</td>
<td>$11.88</td>
</tr>
</tbody>
</table>

This reservation wage demonstrates why many parents choose to remain on welfare, rather than find work. Unless a parent can find a salary above $11.88 (after taxes), child care would become ‘unaffordable’ and the parent would be better off economically by remaining on welfare.

Unfortunately, earning a salary of $11.88/hour is out of the question for many parents due to limited skills and education; only 6.6% of welfare recipients have more than 12 years of education (U.S. Department of Health & Human Services: Administration for Children & Families, 2011, p. 28).

Fortunately, subsidies can offset the high cost of child care and return a parent’s reservation wage to an attainable $8.00/hour, which is less than the current Nevada Minimum Wage of $8.25 (United States Department of Labor, 2014). According to Economist Jean Kimmel’s report entitled, *The role of Child Care Assistance in Welfare Reform*, “Single mothers receiving some welfare support have an average labor force participation probability of 12 percent, which rises to 23 percent when half of their child care costs are subsidized and to 38 percent when fully subsidized (Kimmel, 1994).” The following table 3 shows the expected labor force participation rates for the TANF Families with One Adult, which the Department of Health and Human Services reported at 4,972 families, if they receive some welfare support, half subsidized child care, and fully subsidized child care. (U.S. Department of Health & Human Services: Administration for Children & Families, 2011, p. 8).

\(^4\) Calculated by taking the average fee for full-time care in a center, $8,208, divided by 2,112 (the number of hours a parent is working, 176, multiplied by the number of months in a year, 12).
Table 3: Child Care Subsidies and Labor Force Participation Rates

<table>
<thead>
<tr>
<th>Welfare Benefit</th>
<th>Labor Force Participation Rate</th>
<th>Parents Entering the Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some Support¹</td>
<td>12% of 4,972</td>
<td>597</td>
</tr>
<tr>
<td>Half Subsidized Child Care</td>
<td>23% of 4,972</td>
<td>1,144</td>
</tr>
<tr>
<td>Fully Subsidized Child Care</td>
<td>38% of 4,972</td>
<td>1,889</td>
</tr>
</tbody>
</table>

¹Some support, although not specifically defined in Economist Kimmel’s report, is basic welfare support that a family would receive while they are working, i.e. SNAP.

As seen in the above table, we could expect approximately 12 percent or 597 single parents to enter the workforce if they continue to receive some welfare support as they are working. Approximately 23 percent or 1,144 parents would enter the workforce with half-subsidized child care and 38 percent or 1,889 parents would enter if their child care was fully subsidized.

Providing fully subsidized child care means an additional 1,292 parents would enter the labor force versus those expected to enter with only some welfare support.⁵

These additional 1,292 parents would likely decide to forego their welfare benefits because receiving fully subsidized child care plus their salary would equal more than their reservation wage. This would result in a net savings of over $1,819,316.88 a month to welfare programs such as TANF, SNAP, and HUD.

\[
1,292 \text{ (Additional parents entering the workforce)} \\
\times 1,408.14 \text{ (Average monthly welfare cost per family)} \\
= $1,819,316.88 \text{ (Monthly net welfare savings)}
\]

To provide fully subsidized child care to the additional 1,292 parents who would decide to enter the labor force and forego their welfare benefits, it would cost the state approximately $589,798 (using 2011 market rates, $456.50 a month per child), resulting in a net savings of over $1.2 million per month. This means that for every $1.00 invested in child care subsidies, approximately $3.08⁶ is saved in welfare expenditures.

\[
1,292 \text{ (Additional parents entering the workforce)} \\
\times 456.50 \text{ (Average monthly cost to subsidize childcare per child)} \\
= $589,798 \text{ (Net Subsidy Cost)}
\]

If these funds were reinvested in child care subsidies, more than 2,500 additional children could be served.

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\frac{$1.2 \text{ million per month (welfare savings)}}{$456.50 \text{ (subsidy cost per child)}} = 2,628 \text{ children}
\]

⁵Calculated by taking the difference of the expected labor force participation rate of those receiving some welfare benefits, 597, and those receiving fully subsidized care, 1,889.

⁶Calculated by dividing the Net Welfare Savings, $1,819,316.88 by the Net Fully Subsidized Child Subsidy Cost, $589,798.
Conclusion:

Child care subsidies offer an economic incentive for parents to forego their welfare benefits and enter the workforce. This is due to the reduction in a parent’s reservation wage, allowing parents to accept a job at a lower salary than they would have accepted while paying for child care. Because of the net welfare savings, a savings of $3.08 for every dollar invested, it would be economically advantageous for the State of Nevada to increase its investment in child care subsidies.

References:

Center for Business and Economic Research (CBER) at the University of Nevada Las Vegas. (2014). Nevada KIDS COUNT Data Book 2013. Las Vegas.

http://usa.childcareaware.org/sites/default/files/19000000_state_fact_sheets_2014_v04.pdf


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