Lincoln Trail
Area Development District
~ established 1968 ~

# The Childcare Challenge: Scope, Impact, and Recommendations

***Measurement and Review of the Work Willing Parents living in the Lincoln Trail Development District***

**March 24, 2024**

TPMA
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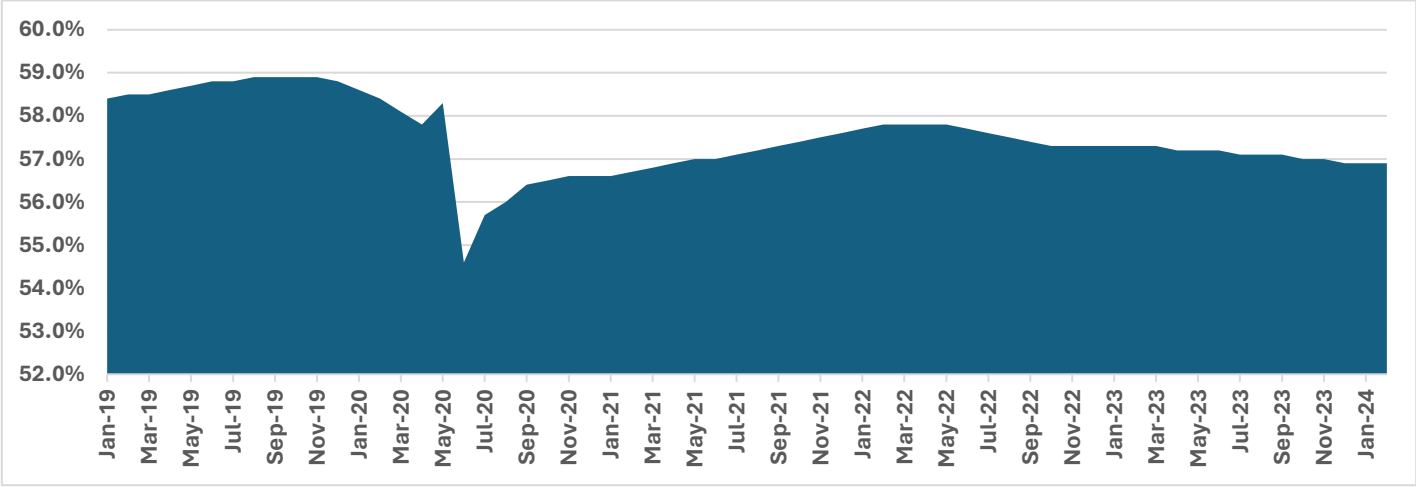
**Executive Summary**

TPMA Inc., in concert with the Lincoln Trail Area Development District, is pleased to present this analysis of the potential impact of an expanding accessible, affordable childcare in the region. Through a thorough, data-driven process, in the pages that follow, we illustrate the scale of the potential financial gains for parents, employers, state, and local governments when they work together to ensure fully adequate childcare for every parent who wants to return to the workforce on a full-time basis.

The Labor Force Participation rate, perhaps the best measure of the population's active engagement in the workforce, remains below pre-Pandemic levels across Kentucky. In December 2019, Kentucky's percentage of work-eligible individuals actively engaged in the labor force (either employed or unemployed, but actively seeking employment) stood at 58.8%. As of February 2024, that rate is 56.9%, nearly two percentage points lower than the pre-COVID high water mark.

**State of Kentucky, Labor Force Participation Rate by Month, 2019-2024, Seasonally Adjusted[1]**




This dip in labor force participation- and the stagnation highlighted in the figure above- translates into thousands of missing workers regionally. Employers in the LTADD region continue struggling to attract and retain all the staff they need across all industry sectors and occupational families. Without an adequately sized workforce, additional economic investment in the region and established businesses' affiliated expansion and growth become challenging. But more than that, the lost wages and earnings, production drop-offs, and lagging sales figures translate into millions of dollars of lost revenue for the state of Kentucky and county governments that rely partly on payroll, sales, and property taxes.

An untapped, significant pool of labor that has left the workforce are parents of young children who cannot afford and/or do not have access to childcare for their young children. Returning these parents to the workforce- many of whom are ready, willing, and eager to re-enter a full-time job if the financial gains outweigh the cost of childcare- can have an immediate and lasting impact on the labor force participation rate and, by extension, the economic vitality of a region. To quantify the potential impact of returning these parents to the workforce, we estimate how many there are in the region, which type of jobs they could fill, and the earnings, GRP gains, and taxes that can be realized through their full-time employment.

[1] Data for State-level Labor Force Participation rates from the Current Population Survey, conducted by the US Bureau of Labor Statistics in concert with Census. Accessible at: https://www.bls.gov/data/home.htm

We refer to this collection of parents throughout this analysis as "work willing," which means that they are eager, willing, and able to rejoin the workforce on a full-time basis but cannot because they either cannot afford or/and do not have ready access to reliable childcare that will allow them to work full-time.

Through a rigorous process that brings to bear data from myriad agencies and sources- including the Census, the US Bureau of Economic Analysis, and the US Bureau of Labor Statistics- we estimate that these benefits- in terms of increased GRP, higher sales/import and payroll taxes and worker wages- far outweigh the potential costs to employers, parents, and the state of Kentucky, should they choose to collaborate in some fashion on the sharing of childcare costs. Using a rigorous methodological approach, we estimate that there are currently **2,035 Work Willing parents** in the eight counties that make up the LTADD and Hart County. Collectively, should they return to the workforce full-time, we estimate they would earn between ***$99.2 million*** and ***$126.3 million*** annually. These earnings would be spent mainly within the region, fueling the purchase of homes, supporting local businesses, and creating additional jobs, earnings, and opportunities for employers and residents of the region. The payroll taxes associated with the earnings of these 2,035 parents would generate between ***$863,000 and $1.09 million*** annually for local governments and between ***$4.5 and $5.7 million*** in additional state ***income tax revenue*** for Kentucky. Additionally, based on the output of the full-time work conducted by these 2,035 Work Willing parents, the region stands to generate additional ***Gross Regional Product (GRP)*** of between ***$164.5 and 230.6 million***. This GRP could result in additional revenue for local, state, and federal governments in ***property, sales, and import taxes***, estimated to range between ***$14.6 and $24.8 annually***.

The opportunity to move the needle on childcare- a nationwide problem- is not only immediate, but the financial benefits for employers, parents, and governments are substantial. After analyzing the economic impact, TPMA includes recommendations for the next steps. The solution to the problem must be multi-faceted and unique to each community. Formal collaboration and coordination on goals, metrics, strategies, and tactics is an almost universal first step.

**LTADD and TPMA thank the following sponsors for their financial support of this report:**

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# *Table of Contents*

**Introduction**

In the following pages, we utilize a rigorous, data-supported approach to estimate an ideal childcare environment- one where every "work-willing" parent finds the care they need to work full-time- will require. To illustrate the benefits of making this sizable investment, we also apply deductive, largely linear logic to estimate these benefits- in extra earnings, taxes, and GRP generated, that parents, the state, and employers would reap if this problem were fully solved. To accomplish this, we answer this collection of questions, methodically and in order, specific to the LTADD region (plus Hart County):

1. **What is the region's current available capacity of childcare providers?**
2. **What is the current cost of childcare in the region?**
3. **What will the future need be for additional childcare seats in the region?**
4. **If given access to affordable and accessible childcare options, how many parents would return to the workforce on a full-time basis?**
5. **What will be the aggregated annual earnings of these parents (which we refer to as "Work Willing")?**
6. **What will these Work Willing parents pay annually in state and local income taxes?**
7. **What will be the gain, in terms of Gross Regional Product (GRP), for regional employers who hire these Work Willing parents?**
8. **What additional sales, import, and property taxes can be realized due to these gains in GRP?**
9. **What recommendations and suggested next steps can be taken to return these parents to the workforce?**

The following sections are organized around this set of questions, and each provides a defensible answer to inform policymakers and vested parties, using real numbers and a combination of national and regional trends.

## Overview: Costs, Capacity, and Projections of Future Need

The LTADD region includes the eight west-central Kentucky counties of Breckinridge, Grayson, Hardin, LaRue, Marion, Meade, Nelson, and Washington. This study also includes Hart County. This section contextualizes the state of the childcare industry in the region. Looking first at cost trends over the last decade, Table I below shows the cost for one day of childcare, by provider Type, age, and region.

Data was not available, unfortunately, for ONLY the counties in the region, so we use the "West" region of the state- which includes the counties of: Allen, Ballard, Barren, Breckinridge, Butler, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Edmonson, Fulton, Graves, Grayson, Hancock, Hardin, Hart, Henderson, Hickman, Hopkins, LaRue, Livingston, Logan, Lyon, Marion, Marshall, McCracken, Mclean, Meade, Metcalfe, Monroe, Muhlenberg, Nelson, Ohio, Simpson, Todd, Trigg, Union, Warren, Washington, and Webster. The latest market rates reported (circa 2020) appear below in Table I, with historical data from 2013, 2015, and 2017 for both context and to highlight rate changes.

**Table I: State vs. West Region, Prices per Day (75th percentile), By Age Category and Type, 2013-2020 (select years)**

| | | Type I | | | | Type II | | | | Home-Based | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Year*** | ***Region*** | ***Birth to 12 Months*** | ***Birth to 2*** | ***Ages 2 to 4*** | ***Ages 5 and Up*** | ***Birth to 12 Months*** | ***Birth to 2*** | ***Ages 2 to 4*** | ***Ages 5 and Up*** | ***Birth to 12 Months*** | ***Birth to 2*** | ***Ages 2 to 4*** | ***Ages 5 and Up*** |
| 2013 | State | | $28.00 | $26.00 | $23.00 | | $27.00 | $25.00 | $23.00 | | $27.00 | $25.00 | $22.00 |
| | West | $26.25 | $25.00 | $24.00 | $23.00 | $25.00 | $24.00 | $23.50 | $24.00 | $25.32 | $24.50 | $21.00 | $21.50 |
| 2015 | State | | $30.00 | $27.00 | $25.00 | | $27.00 | $25.00 | $23.00 | | $25.00 | $22.00 | $20.00 |
| | West | $25.00 | $24.75 | $23.00 | $21.00 | $32.25 | $22.25 | $22.25 | $22.50 | $22.00 | $20.00 | $20.00 | $19.00 |
| | | **Type I** | | | | **Type II** | | | | **Home-Based** | | | |
| ***Year*** | ***Region*** | | ***Infant and Toddler*** | ***Pre-School*** | ***School Age*** | | ***Infant and Toddler*** | ***Pre-School*** | ***School Age*** | | ***Infant and Toddler*** | ***Pre-School*** | ***School Age*** |
| 2017 | State | | $31.00 | $28.45 | $25.00 | | $29.00 | $27.25 | $24.75 | | $26.00 | $25.00 | $20.00 |
| | West | | $26.00 | $25.00 | $24.00 | | $25.00 | $25.00 | $23.00 | | $21.00 | $20.00 | $18.25 |
| ***Year*** | ***Region*** | ***Infants*** | ***Toddler*** | ***Pre-School*** | ***School Age*** | ***Infants*** | ***Toddler*** | ***Pre-School*** | ***School Age*** | ***Infants*** | ***Toddler*** | ***Pre-School*** | ***School Age*** |
| 2020 | State | $37.25 | $35.55 | $32.79 | $28.00 | $33.00 | $29.50 | $29.25 | $30.00 | $28.25 | $27.00 | $25.00 | $25.00 |
| | West | $30.00 | $28.00 | $27.00 | $26.00 | $25.50 | $24.25 | $25.50 | $26.00 | $25.00 | $25.00 | $25.00 | $25.00 |

ChildCareAware of Kentucky provided data on costs for the years 2013, 2015, 2017, and 2020. Below are links to reports, which include detailed methodology by year.

2013: https://www.childcareawareky.org/wp-content/uploads/2019/09/2013-mrs-final-report.pdf
2015: https://www.childcareawareky.org/wp-content/uploads/2019/09/2015-mrs-final-report.pdf
2017: https://www.childcareawareky.org/wp-content/uploads/2019/09/2017-kentucky-market-rate-study.pdf
2020: https://www.childcareawareky.org/wp-content/uploads/2021/05/2020-Market-Rate-Report.pdf

To make the data more manageable, we calculate the average annual price per day by summing all daily costs for each age/type category (as reported in Table I above) and then dividing by the total number of categories. These denominators (total categories) vary slightly by year due to changes in reporting/available data at the region vs. state level. Additionally, because the market study was only conducted in the years 2013, 2015, 2017, and 2020, we estimated the costs for the missing years of 2014, 2016, 2018, 2019, 2021, 2022, and 2023. To do so, we assume a linear increase in the gap years, calculated by subtracting the average cost of the last available year from the average cost of the next available year and then dividing by the number of years between reported rates. This value is then added to the last available average cost and reported in the missing year.

Between 2017 and 2020, the average daily rate for childcare in the state increased by $1.26 (annually), while the rate in the West region increased by $1.00 annually. With no additional data available after 2022, we assume this annual increase has remained constant and adjust each value for 2021 through 2023 upwards accordingly.

**Table II: State vs. West Region, Average Price per Day, Week and Year, Modeled for All Years, 2013-2023**

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **STATE Average Daily Cost** | $25.11 | $25.00 | $24.89 | $25.58 | $26.27 | $27.53 | $28.79 | $30.05 | $31.31 | $32.57 | $33.83 |
| **WEST Average Daily Cost** | $23.93 | $23.38 | $22.84 | $22.94 | $23.03 | $24.03 | $25.02 | $26.02 | $27.02 | $28.02 | $29.02 |
| | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** |
| **STATE Average Weekly Cost** | $126 | $125 | $124 | $128 | $131 | $138 | $144 | $150 | $157 | $163 | $169 |
| **WEST Average Weekly Cost** | $120 | $117 | $114 | $115 | $115 | $120 | $125 | $130 | $135 | $140 | $145 |
| | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** |
| **STATE Average Annual Cost** | $6,529 | $6,500 | $6,471 | $6,651 | $6,830 | $7,158 | $7,485 | $7,813 | $8,141 | $8,468 | $8,796 |
| **WEST Average Annual Cost** | $6,222 | $6,079 | $5,938 | $5,963 | $5,988 | $6,247 | $6,506 | $6,765 | $7,025 | $7,285 | $7,545 |

To give some perspective to the parents who need to pay for full-time childcare, we next extracted the median household income for the state of Kentucky (Table III below) and compared these values to the median household income for the LTADD region itself (**Table IV**).

**Table III: Median Income, Households with Children, State of Kentucky**

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| **All** | $52,486 | $51,937 | $53,589 | $56,335 | $61,354 | $62,026 | $65,141 | $65,096 | $69,234 | $76,308 |
| **Married/Partner Present** | $72,843 | $72,934 | $75,063 | $80,308 | $83,847 | $85,799 | $89,790 | $88,819 | $93,766 | $101,399 |
| **Male Householder, no Partner** | $36,153 | $29,454 | $32,859 | $35,163 | $37,434 | $40,473 | $41,864 | $39,627 | $41,165 | $47,575 |
| **Female Householder, no Partner** | $18,635 | $19,230 | $20,666 | $21,222 | $22,994 | $21,799 | $24,459 | $24,663 | $26,208 | $31,770 |

**Table IV: Median Income, Households with Children LTADD Region Counties[2]**

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| **All** | $53,536 | $52,976 | $54,661 | $57,462 | $62,581 | $63,267 | $66,444 | $66,398 | $70,619 | $77,834 |
| **Married/Partner Present** | $74,300 | $74,393 | $76,564 | $81,914 | $85,524 | $87,515 | $91,586 | $90,595 | $95,641 | $103,427 |
| **Male Householder, no Spouse/Partner** | $36,876 | $30,043 | $33,516 | $35,866 | $38,183 | $41,282 | $42,701 | $40,420 | $41,988 | $48,527 |
| **Female Householder, no Spouse/Partner** | $19,008 | $19,615 | $21,079 | $21,646 | $23,454 | $22,235 | $24,948 | $25,156 | $26,732 | $32,405 |

When the data in Tables IV and II are combined, a picture of the typical cost of care, as a percentage of median income, emerges in the LTADD region. ***Table V*** below reports these percentages annually and by family structure, using income and childcare costs unique to the region.

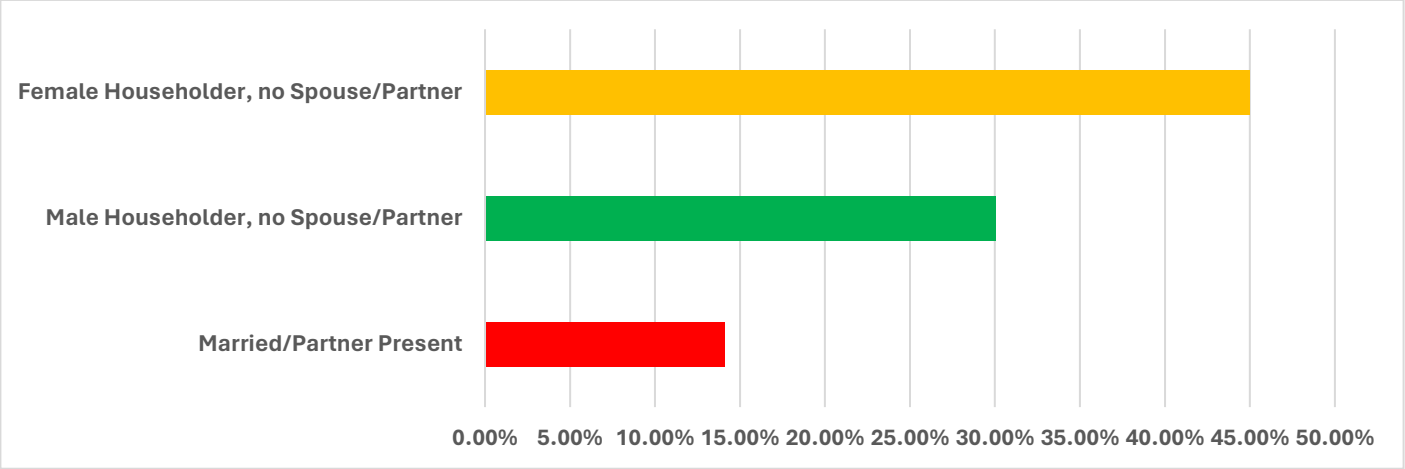
**Table V: Average Annual Cost of Childcare for 1 Child, as Percent of Median Income, Households with Children, LTADD Region, 2013-2022**

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| **All** | 11.62% | 11.74% | 11.38% | 10.83% | 9.94% | 9.83% | 9.36% | 9.37% | 8.81% | 7.99% |
| **Married/Partner Present** | 8.37% | 8.36% | 8.13% | 7.60% | 7.27% | 7.11% | 6.79% | 6.87% | 6.51% | 6.02% |
| **Male Householder, no Partner** | 16.87% | 20.71% | 18.56% | 17.35% | 16.29% | 15.07% | 14.57% | 15.39% | 14.82% | 12.82% |
| **Female Householder, no Partner** | 32.73% | 31.72% | 29.52% | 28.74% | 26.53% | 27.98% | 24.94% | 24.73% | 23.27% | 19.20% |

[2] Due to lack of available data for counties in the region, we model these values as a percentage of the state totals. Based on 5 year estimates from the American Community Survey, the weighted median household income in the LTADD is 102% of the state median household income. Data available at: https://data.census.gov/table/ACSST5Y2022.S1901?q=United%20States&g=040XX00US21_050XX00US21027,21085,21093,21123,21155,21163,21179,21229&tid=ACSST1Y2022.S1901 and reproduced in the Appendix for full reference.

In the most general terms, the upward pressure on wages since 2019 has led to, overall, lower rates (as a percentage of income) for childcare vis-à-vis the 2013 cost. In 2013, a single parent (female) would have paid almost 33% of her earnings for full-time childcare, while by 2023- while still often cost-prohibitive- this value has fallen to 19.2%. Including TWO children that require full-time childcare, Figure I below highlights the ratio of childcare cost to household earnings in the LTADD.

**Figure I: Income vs. Cost Care, LTADD Region, 2013-2023**
**(Two Children in Full-Time Childcare)**




Figures II through IV on this page and the next contrast the differing impact of childcare costs for families of different types (2-parent, single-parent, and single-mother households). Beyond the scope of this analysis (well-examined and readily available elsewhere), female heads of household generally earn less than their male counterparts. Using data unique to the region, we find this relationship holds true, represented graphically in Figure II below.

**Figure II: Cost for Full-Time Childcare (2 Children) vs. Median Household Income**
**Female Head of Household, no Partner/Spouse**

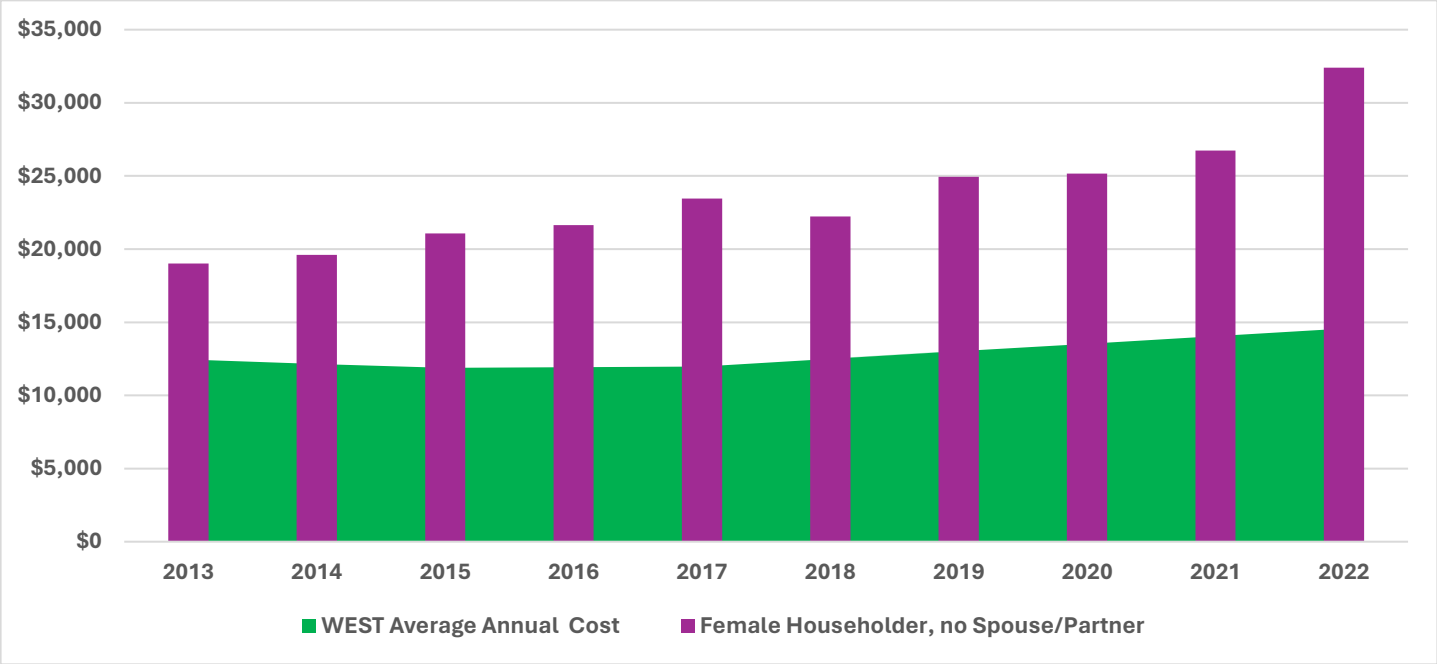


**Figure III: Cost for Full-Time Childcare (2 Children) vs. Median Household Income**
**Male Head of Household, no Partner/Spouse**

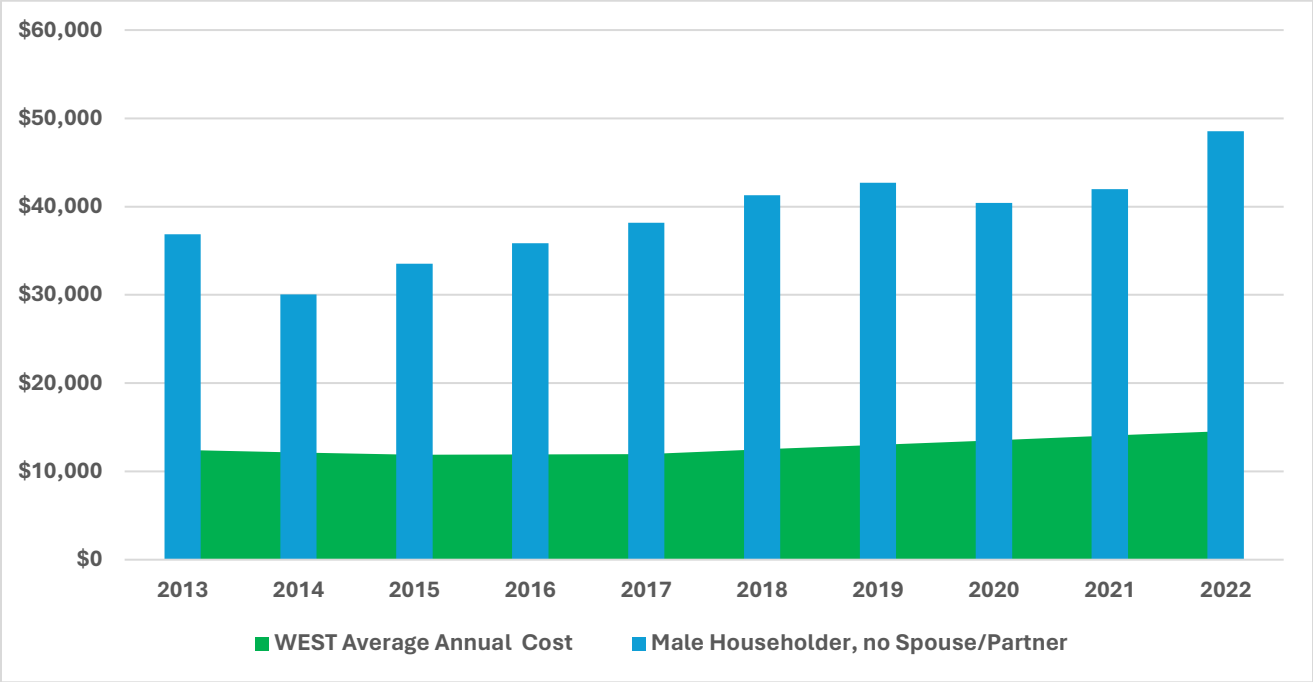
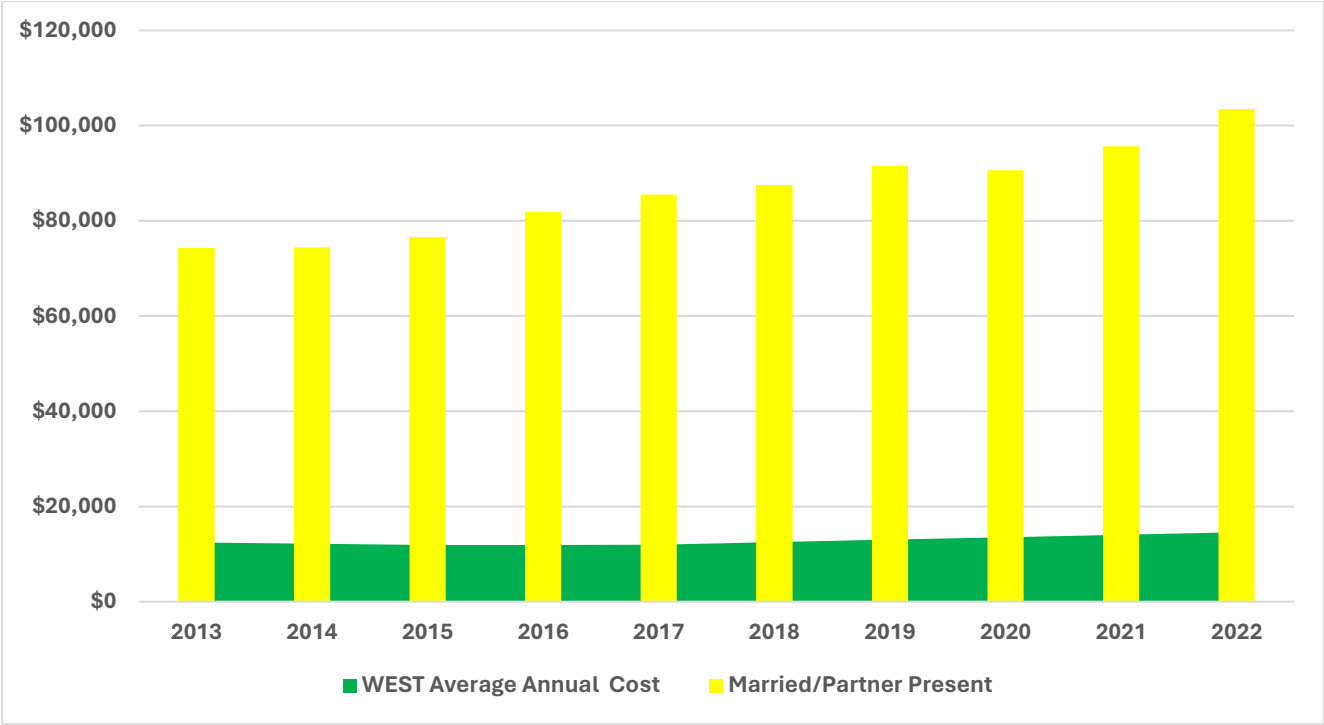



**Figure IV: Cost for Full-Time Childcare (2 Children) vs. Median Household Income**
**2-Parent Households**




Turning now to the capacity of existing childcare providers in the region, we once again rely on data reported by the Kentucky Center for Statistics for historical estimates (2019 through 2022- reported in Table VII) and append these rates with the projected population of children under the age of 5, through 2033 (reported in Table VI).

Combining these two data points allows for estimating the needed capacity over the next decade (illustrated graphically in ***Figure VI***). To account for the anticipated beginning of operations at the Blue Oval SK Battery Park in 2024, we manually adjusted the estimated population of children under the age of 5 for Hardin County. To do this, we applied current employment trends for Electric Battery Manufacturing, isolating the percentage of the staff between the ages of 18 and 34[3]. Using this as a starting point, we next apply statewide ratios of the population under the age of 5 to the adult population, aged 34 or younger,[4] to estimate the percentage of adults with young children.

**Table VI: Electric Vehicle Manufacturing Workforce, Percent by Age (2022)**

| NAICS | Description | Percent Aged 19-21 | Percent Aged 22-24 | Percent Aged 25-34 | Percent, Aged 34 or Younger |
|---|---|---|---|---|---|
| 335910 | Battery Manufacturing | 3.46% | 6.02% | 25.27 | 34.75% |

**Table VII: Kentucky Population, Select Age Categories, Circa 2022**

| Age Category | Kentucky Population |
|---|---|
| Under five years | 260,433 |
| 20 to 24 years | 301,356 |
| 25 to 29 years | 290,830 |
| 30 to 34 years | 296,329 |

In 2022, there were 260,433 estimated children under the age of 5 and 888,515 adults between the ages of 20 and 34. Dividing the former by the latter yields a factor of 29.3%, which we use as a proxy measure of the percentage of adults between 20 and 34 who have a child under the age of five. Applying these rates and the estimated workforce by age data in Table VIII below gives us annual estimates of the number of employees at the new Blue Oval SK Battery Park who will have children aged five or younger (highlighted in green). These totals were added to the standard estimates for Hardin County for the years 2024-2033

**Table VIII: Estimated Workers in Need of Childcare, Blue Oval Battery Park**

| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|---|---|---|---|---|---|---|---|---|---|---|
| **All Employees** | 2,500 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| **Aged 34 or Younger** | 869 | 1,738 | 1,738 | 1,738 | 1,738 | 1,738 | 1,738 | 1,738 | 1,738 | 1,738 |
| **34↓, with Child 5↓** | **255** | **509** | **509** | **509** | **509** | **509** | **509** | **509** | **509** | **509** |

[3] Data accessed via LightCast™, based on national estimates from the US Bureau of Labor Statistics.
[4] Data from 2022 American Community Survey, using 1-year estimates for the state of Kentucky. Accessible at: https://data.census.gov/table/ACSST1Y2022.S0101?q=United%20States&t=Age%20and%20Sex&g=010XX00US_040XX00US21

**Table IX: Population Aged 5 or Under[5] by Year and County**

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Breckinridge** | 1,156 | 1,156 | 1,179 | 1,156 | 1,259 | 1,257 | 1,262 | 1,264 | 1,284 | 1,298 | 1,314 | 1,327 | 1,338 | 1,347 | 1,352 |
| **Grayson** | 1,631 | 1,745 | 1,653 | 1,683 | 1,692 | 1,691 | 1,694 | 1,688 | 1,700 | 1,701 | 1,705 | 1,708 | 1,712 | 1,716 | 1,719 |
| **Hardin** | 7,245 | 7,244 | 7,189 | 7,129 | 7,037 | 7,214 | 7,431 | 7,386 | 7,417 | 7,430 | 7,451 | 7,475 | 7,502 | 7,536 | 7,565 |
| **Hart** | 1,387 | 1,314 | 1,294 | 1,309 | 1,317 | 1,311 | 1,317 | 1,321 | 1,344 | 1,356 | 1,369 | 1,380 | 1,390 | 1,402 | 1,413 |
| **Larue** | 764 | 742 | 793 | 781 | 920 | 951 | 976 | 988 | 1,004 | 1,010 | 1,017 | 1,024 | 1,031 | 1,039 | 1,046 |
| **Marion** | 1,148 | 1,086 | 1,123 | 1,160 | 1,175 | 1,184 | 1,197 | 1,206 | 1,226 | 1,241 | 1,256 | 1,270 | 1,285 | 1,299 | 1,310 |
| **Meade** | 1,507 | 1,460 | 1,576 | 1,565 | 1,468 | 1,473 | 1,483 | 1,489 | 1,509 | 1,527 | 1,544 | 1,560 | 1,575 | 1,589 | 1,601 |
| **Nelson** | 2,868 | 2,800 | 2,832 | 2,838 | 2,788 | 2,777 | 2,779 | 2,771 | 2,796 | 2,808 | 2,821 | 2,834 | 2,846 | 2,858 | 2,869 |
| **Washington** | 726 | 753 | 742 | 721 | 695 | 687 | 684 | 678 | 682 | 684 | 687 | 690 | 692 | 696 | 698 |
| **LTADD Region** | 18,432 | 18,300 | 18,381 | 18,342 | 18,351 | 18,545 | 18,823 | 18,791 | 18,962 | 19,055 | 19,164 | 19,268 | 19,371 | 19,482 | 19,573 |

Now, with adjusted estimates of children to include the expected influx of workers as part of the Blue Oval project, we next need current capacity estimates for the region's childcare providers. This data is reported below in ***Table X*** and represented graphically in **Figure V**.

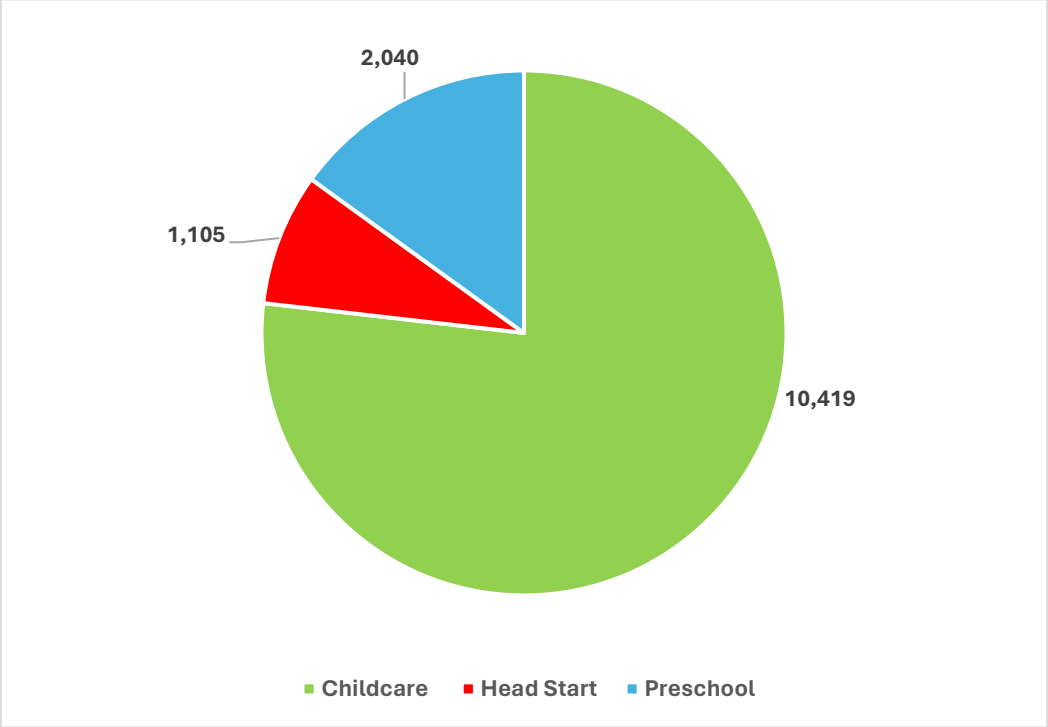
**Table X: Current Capacity[6], by County and Program, LTADD Region**

| County | Childcare | Head Start | Preschool | | All Categories |
|---|---|---|---|---|---|
| Breckinridge | 280 | 166 | 83 | | 529 |
| Grayson | 602 | 214 | 188 | | 1,004 |
| Hardin | 5,099 | 182 | 884 | | 6,165 |
| Hart | 129 | 154 | 32 | | 315 |
| Larue | 438 | 39 | 96 | | 573 |
| Marion | 666 | 174 | 135 | | 975 |
| Meade | 470 | 62 | 154 | | 686 |
| Nelson | 2,203 | 104 | 388 | | 2,695 |
| Washington | 532 | 10 | 80 | | 622 |
| **LTADD Region** | **10,419** | **1,105** | **2,040** | | **13,564** |

[5] For the years 2019 through 2022, counts from the American Community Survey, 5-year estimates, available at: https://data.census.gov/table/ACSST5Y2019.S0101?q=United%20States&t=Age%20and%20Sex&g=040XX00US21_050XX00US21027,21085,21093,21123,21155,21163,21179,21229&tid=ACSST5Y2020.S0101. For years 2023 through 2033, modeled estimates of future population from LightCast™, Population Demographic Reports. Accessed January 8, 2024.

[6] Data from Kentucky Center for Statistics, collected in concert with the Governor's Office of Early Childhood. Available at: https://kystats.ky.gov/Latest/ECP

**Figure V: Capacity Distribution by Program Type, LTADD 2023**

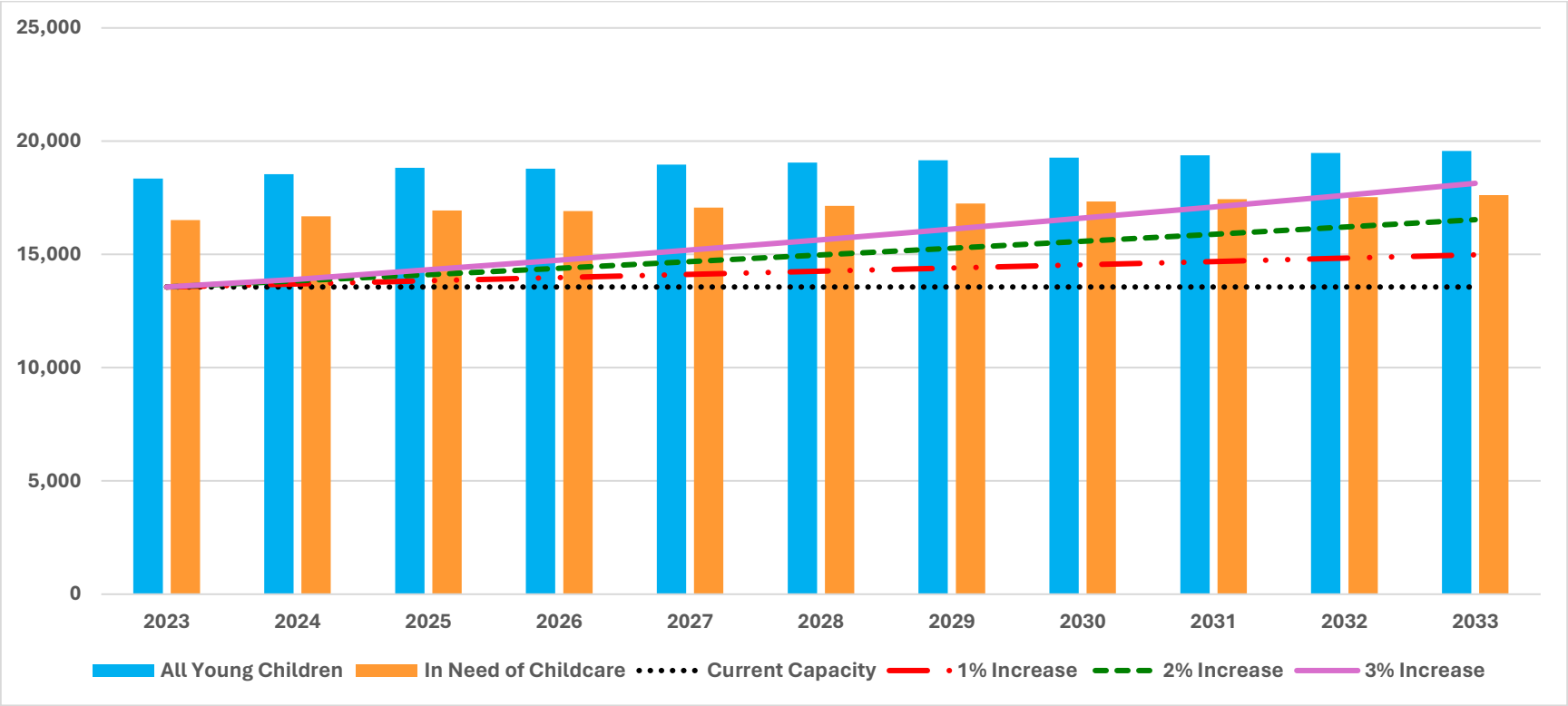



To estimate the projected future need for additional seats, we slightly adjust the count of children in the region to account for not all families requiring childcare. Some will rely on grandparents, a stay-at-home parent, an older sibling, or parents who work opposite shifts to ensure there is always someone home with the child. While it is difficult to pinpoint a precise number, we know there will always be a set percentage of children who do not attend childcare, preschool, or Head Start. To avoid overestimating future demand, we estimate that 10% of all young children will NOT require childcare, regardless of availability or cost.

***Figure VI*** plots the current capacity and incremental annual changes to capacity against the current and future population of young children and the population that will require childcare through 2033. Based on our estimates, the region must ***increase capacity by just under 3% annually*** to meet the total demand for access by 2033. A brief color-coded key below offers an additional explanation of the components of the gap graphing. Cumulatively, across the next decade, the region will need to add 4,052 new seats/slots to meet the expected demand for childcare fully. This figure includes new employees at the Blue Oval SK Battery Park (requiring childcare) and future population projections.

**BLUE BAR:** Full Population, Children Under Age 5, by year (projections for 2024-2033 from LightCast™).
**ORANGE BAR:** 90% of the Full Population; this is the estimated number of young children who will require childcare.
**BLACK LINE (Dotted):** Current capacity (number of seats/slots) in the entire region, held constant through 2033.
**RED LINE (Dash + Dots):** Capacity if the region increases the number of seats by 1% year over year (an additional 1% each year, based on the prior year's total number of seats).
**GREEN LINE (Dashed):** Capacity if the region increases the number of seats by 2%, year over year.
**PUPRLE LINE (Solid):** Capacity if the region increases the number of seats by 3%, year over year.

**Figure VI: Children Under 5, Those in Need of Childcare, and Capacity (Constant and Modeled Change), 2023-2033**




Based on our estimates, to reach a state of equilibrium between demand and capacity, the LTADD region (plus Hart County) needs just over an additional ***4,000 seats***. In terms of manageable actual goals, we included Table XI below, which identifies the number of seats that need to be added annually to reach this state of equilibrium (3% annual increase, highlighted in yellow). We also include figures for the 1% and 2% estimates for perspective.

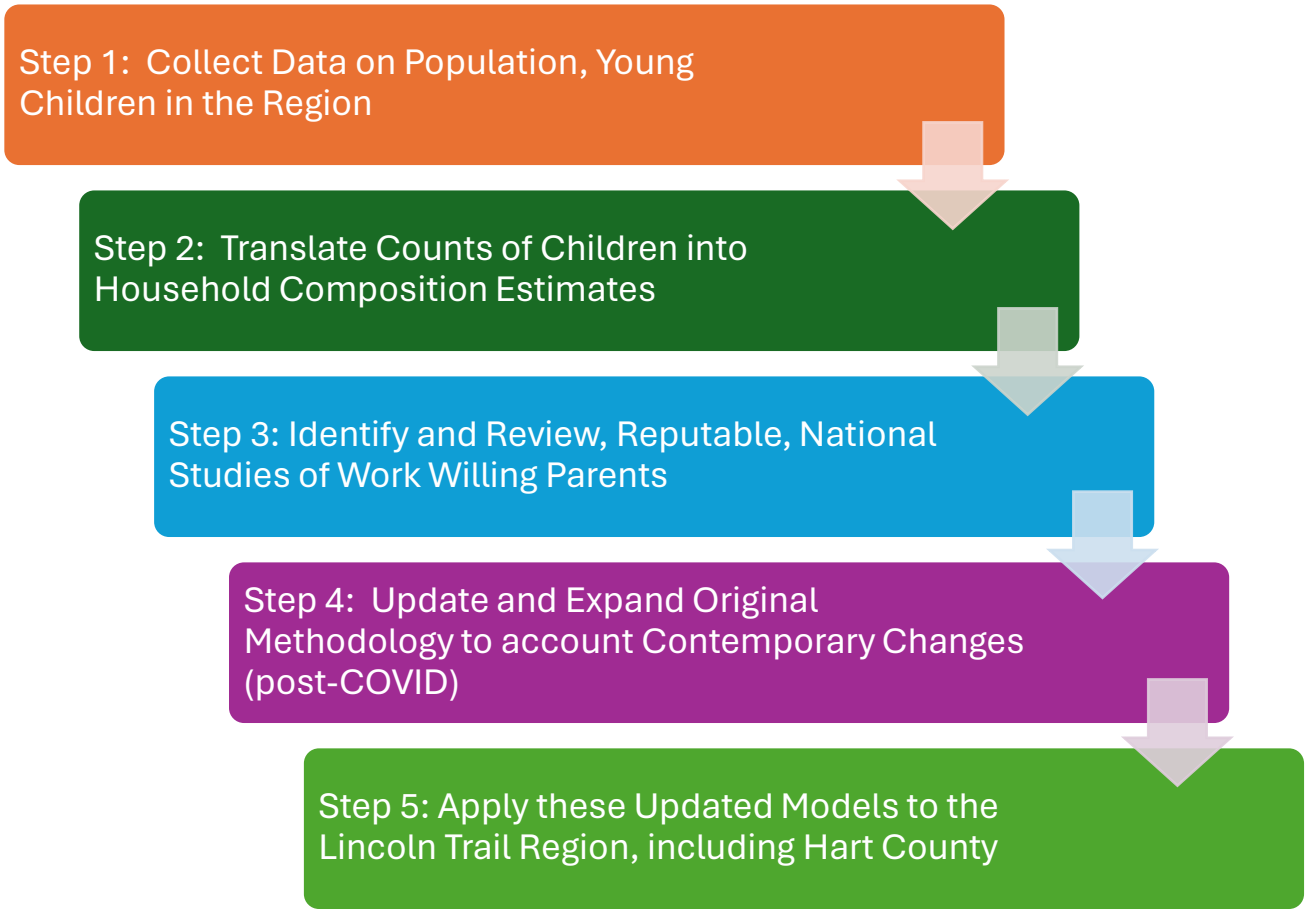
**Table XI: Annual Increase in Seats to Meet Demand (2024 through 2033)**

| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|---|---|---|---|---|---|---|---|---|---|---|
| **1% Increase** | 136 | 137 | 138 | 140 | 141 | 143 | 144 | 145 | 147 | 148 |
| **2% Increase** | 271 | 277 | 282 | 288 | 294 | 300 | 306 | 312 | 318 | 324 |
| **3% Increase** | 339 | 417 | 430 | 442 | 456 | 469 | 484 | 498 | 513 | 528 |

## Modeling the Work Willing Parents, LTADD Region

To quantify the number of "Work Willing" parents in the identified region and estimate the financial impact of their return to the workforce, we rely on an assortment of data from the US Census Bureau, the US Bureau of Labor Statistics, and the US Bureau of Economic Analysis. The model relies on a deductive approach, applying national trends identified in reputable studies and updating the models to account for changes during and after the COVID-19 pandemic. **Figure VII** below provides a shorthand overview of how we identified "Work-Willing" parents.

**Figure VII: Process for Identifying "Work Willing" Parents**




A parent who is considered "work-willing":

1. Is not currently in the Labor Force; that is, is neither employed nor actively seeking employment.
2. Is ready and able to return to the Labor Force, willing to take on full-time employment.
3. Despite this willingness, they cannot proceed because they cannot access suitable childcare, of any variety, due to a lack of availability (no open seats), area providers, and/or the inability to afford childcare, if it were available.

"Affordable" childcare may vary from one parent to another. In a later section, we explore two unique scenarios to account for discrepancies in the earning power of work-willing parents, one where the returning parents skew heavily toward lower-paying occupations. First, however, it is necessary to estimate HOW MANY parents should be counted as "work-willing" in the region.

**Step 1: Population Estimates, Young Children in the Region**

Based on the population estimates we used in the previous section to model supply and demand for childcare seats, we already have the data necessary to call Step 1 "complete." However, this original data from LightCast™ was verified with the US Census Bureau's American Community Survey, vintage 2022 to ensure consistency in the projections. Given the mostly equal distribution of these ages in the region, we divide the total children under the age of 5 in the region by 5, yielding estimates of children by age. Though tangential to calculating "work-willing" parents, this breakdown can prove instructive when planning seat expansions by age group. Table XII below includes estimates for the region, broken out by age and county.

**Table XII: Estimates of Children Under the Age of 5, by County and Age Cohort, Circa 2023**

| County | Aged 4 to 5 | Aged 3 to 4 | Aged 2 to 3 | Aged 1 to 2 | Aged 0 to 1 | All Children, Under 5 |
|---|---|---|---|---|---|---|
| Breckinridge | 251 | 251 | 251 | 251 | 251 | 1,257 |
| Grayson | 338 | 338 | 338 | 338 | 338 | 1,691 |
| Hardin | 1,443 | 1,443 | 1,443 | 1,443 | 1,443 | 7,214 |
| Hart | 262 | 262 | 262 | 262 | 262 | 1,311 |
| Larue | 190 | 190 | 190 | 190 | 190 | 951 |
| Marion | 237 | 237 | 237 | 237 | 237 | 1,184 |
| Meade | 295 | 295 | 295 | 295 | 295 | 1,473 |
| Nelson | 555 | 555 | 555 | 555 | 555 | 2,777 |
| Washington | 137 | 137 | 137 | 137 | 137 | 687 |
| **Total in Region** | **3,709** | **3,709** | **3,709** | **3,709** | **3,709** | **18,545** |

In 2023, an estimated 18,351 children under the age of five will live in the region.

**Step 2: Translating Counts of Children into Household Estimates**

Collecting and validating the number of children eligible for childcare services in the region leads to translating these counts into households and, ultimately, parents who could rejoin the workforce if affordable, high-quality childcare were to become available. This ratio, of course, is not 1-to-1, that is, we cannot assume that for each additional child placed in a childcare program there will be one unique, additional parent (re)joining the workforce. To ensure we are not overestimating the number of potential parents who would rejoin the workforce, we must carefully control for households with more than one child under the age of 5. To do this, we again return to American Community Survey data from the US Census Bureau to triangulate our estimates.

**Table XIII: Distribution of Households with Children Under 6, by Number of Children Under 5 in Same Household, United States[7]**

| | Count | Percentage |
|---|---|---|
| **Households with Children Under 5** | 14,196,000 | 100.00% |
| **One Child Under 5** | 10,039,000 | 70.72% |
| **Two Children Under 5** | 3,613,000 | 25.45% |
| **Three or More Children Under 5** | 544,000 | 3.83% |

[7] National level data, extracted from Census Table F1. "Family Households,1 by Type, Age of Own Children, Age of Family Members, and Age of Householder: 2022", accessible at https://www.census.gov/data.html

Based on the national level distribution of children under the age of 6, **Table XIII** tells us that 70.72% of all children under 5 live in a home with no other children in the same age category, 25.45% of all children under 5 live in a household with one other child in the same age group and 3.83% of all children under 5 live in a household with three or more other children, also aged under 5. Applying these percentages to our counts of children in the region, we get the estimates in **Table XIV** below. The bottom-line total gives us the ratio we need to estimate the entire universe of households with children under the age of 5, controlling for those with more than one child in this age group. In short, for each child aged 5 or under in the region, 0.847 households could utilize early childhood learning/childcare services, not quite a 1-to-1 ratio. Translated into real numbers (in the table below), in the LTADD Region, 18,545 children aged 5 and under live in ***15,712*** *unique households*. We use the 2024 population estimates (adjusted to account for the initial influx of new workers at the Blue Oval SK Battery Park).

**Table XIV: LTADD Region, Children Under 5, Household Estimates 2024**

| | Children | Households |
|---|---|---|
| **With Only 1 Child Under 5 in Household** | 13,115 | 13,115 |
| **With 2 Children Under 5 in Household** | 4,720 | 2,360 |
| **With 3 or more Children Under 6 in Household** | 710 | 237 |
| **All Children, Under 6** | **18,545** | **15,712** |

Before estimating how many of these 15,712 households contain a "Work Willing" parent, we took additional steps to assess the household types in the region. Again, turning to American Community Survey data for the region (5-year estimates), we apply the reported percentages to our household counts in Table XV below, identifying the percentages and counts of households in the region with a married couple, a cohabitating couple, a single father, and a single mother. We will use this breakout in the remaining steps to further disaggregate the number of Work Willing parents.

**Table XV: Households with Children Under 5, by Type**

| | Child(ren) Under 18 | Percent of Households | Household Estimates, Child(ren) Under 5 |
|---|---|---|---|
| Married Couple | 19,018 | 66.65% | 10,472 |
| Cohabitating Couple | 2,521 | 8.84% | 1,389 |
| Male No Partner | 1,838 | 6.44% | 1,012 |
| Female No Partner | 5,155 | 18.07% | 2,839 |
| **TOTAL** | **28,532** | **100.00%** | **15,712** |

**Steps 3, 4, & 5: Identify Established Studies of Work Willing Parents (3), Expand and Update Modeling Through 2022 (4) & Apply Trends to the LTADD Region (5)**

In this section, we quantify/develop four separate models of the unmet demand for childcare among "work-willing" parents throughout the stages of the pandemic. While ultimately, we will use the post-pandemic, "Recovery"

model to derive current[8] estimates of work-willing parents in the region for use later in this study, it is essential to ground the estimates in reputable, national-level studies that track the impact of the lack of available, affordable childcare has on the workforce over time.

While it would be cleaner to break out this collection of steps into separate sections, it is more helpful to present the results FIRST (**Table XVI** below), then back into the logic used to derive them using real numbers and supplemental, validating data from Census and BLS. With that in mind, the models we developed estimate that the number of households with at least one "work-willing" parent unable to rejoin the workforce due to childcare challenges ranged from ***13.6% in 2019*** to ***18.79% in 2020,*** then down to ***16.59% in 2021***, settling back at ***12.95% by 2022***. Using the best available data, we estimate that this 12.95% of households with children under 5 translates to parents in the region willing, but unable, to work full-time due to a lack of available, affordable childcare.

**Table XVI: Estimates of Unrealized Workforce, by Households Impacted by Lack of Childcare, LTADD Work Willing Parents, 2019-2022**

| | Households with Children Under 5[9] | 2019, CEA Ratio, "Pre-Covid" Model (13.60%) | 2020, "Peak Impact" Model (18.79%) | 2021, Residual "Post Impact" Model (16.59%) | 2022 "Recovery" Model, (12.95%) |
|---|---|---|---|---|---|
| **Married/Cohabitating** | 11,861 | 1,613 | 2,229 | 1,968 | 1,536 |
| **Male, No Partner** | 1,012 | 138 | 190 | 168 | 131 |
| **Female, No Partner** | 2,839 | 386 | 533 | 471 | 368 |
| ***Totals*** | ***15,712*** | **2,137** | **2,952** | **2,607** | **2,035** |

**Baseline Study, 2019, CEA Childcare Impact Ratio:** A study commissioned by the *Council of Economic Advisers to the President*, released in December 2019- just before the pandemic- estimated the number of parents with children under six who would re-enter the workforce, full-time, if affordable childcare was available at 3.8 million[10]. Data from the US Bureau of Labor Statistics (see Table XVII below) for the same period estimated the number of parents of children under six, eligible to join the workforce[11], at **27,932,000**. Dividing this population number (**27.932 million**) into the number of parents the CEA reports as not working due to childcare constraints (**3.8 million**) yields ***13.60%***. Stated another way, 13.6% of all parents of children under the age of 6 were unable to enter the workforce due to childcare constraints in 2019.

In **Table XIII** above, we use this percentage (13.6%) to determine the number of households with children under the age of 5 in the LTADD Region who were willing but unable to join the workforce due primarily to childcare

[8] The latest available data from the US Bureau of Labor Statistics on Labor Force Participation rates for parents of young children is for Calendar Year 2022. Updated data for 2023 will be available some time in 2024. We use this latest available data and apply it to 2024 counts of households in the region to better estimate a current number of work willing parents.

[9] 2024 Estimates

[10] "The Role of Affordable Child Care in Promoting Work Outside the Home". December 2019. *The Council of Economic Advisors, Executive Office of the President*. Available at: https://trumpwhitehouse.archives.gov/wp-content/uploads/2019/12/The-Role-of-Affordable-Child-Care-in-Promoting-Work-Outside-the-Home-1.pdf

[11] Referred to as Civilian Noninstitutional Population, this number excludes individuals in the armed services, incarcerated individuals, and individuals who are institutionalized.

barriers. In real numbers, across all age groups, in **2019**, the region's workforce was missing out on a potential **2,137** full-time employees who were not in the workforce due to a lack of childcare.

**Table XVII: Bureau of Labor Statistics, Annual Estimates, Parents of Children under the Age of 6 and the Labor Force**[12]

| | 2019 All | 2019 Women | 2019 Men |
|---|---|---|---|
| **Civilian Noninstitutional Population** | 27,932,000 | 12,672,000 | 15,260,000 |
| **Civilian Labor Force** | 22,175,000 | 12,042,000 | 10,133,000 |
| **Participation Rate** | 79.4 | 95 | 66.4 |
| **Employed** | 21,502,000 | 11,777,000 | 9,725,000 |
| **Full-Time** | 18,695,000 | 11,319,000 | 7,376,000 |
| **Part-Time** | 2,807,000 | 458,000 | 2,349,000 |
| **Employment-Population Ratio** | 77 | 92.9 | 63.7 |
| **Unemployed** | 673,000 | 265,000 | 408,000 |
| **Unemployment Rate** | 3.0 | 2.2 | 4.0 |
| | | | |
| **Additional Potential Employed**[13] | 3,800,000 | N/A | N/A |
| **As a Percent of the Labor Force** | 17.14% | N/A | N/A |
| **As a Percent of the Population** | 13.60% | N/A | N/A |

**2020- Peak Impact Adjustment:** The pandemic, as is well documented, forced even more parents out of the workforce. To capture this impact- beyond the 13.6% application we used to estimate the impact in 2019- we looked at the year-over-year labor force participation for parents of children under age 6. To quantify a defensible measure of this specific impact, again standardized as a national percentage we can use in the LTADD region, we again looked to the Bureau of Labor Statistics data series for guidance.

The Current Population Survey tracks labor force participation for parents of children under 6 and reports this data annually. As ***Figure VIII*** below highlights, the ratio of these parents who were employed to the population of all work-eligible parents fell sharply in 2020 and rebounded only partially in 2021. By 2022- the last available data from BLS as of this writing- that rate had fully recovered from the 2019 high. Based on these ratios- reported in **Table XVIII** below as well- 2020 saw this ratio (73.0) fall by 5.19% from the 2019 ratio (77.0). We can use this percentage of 5.19 to estimate the additional impact of childcare constraints on parents in the LTADD region. Having estimated the 2019 impact at 13.6% of the population, we add this additional 5.19% to the pre-covid impact, yielding a total impacted population in 2020 estimate of ***18.79%***. In practical terms, in 2020, we estimate that 18.79% of all parents of children under the age of 6 could not work due to childcare limitations. This 18.79% translated into **2,952** workers NOT in the LTADD labor force.

[12] "Employment Characteristics of Families, 2019". 21 April 2020. News Release, Bureau of Labor Statistics, available at: https://www.bls.gov/news.release/archives/famee_04212020.pdf

[13] As reported by The Council of Economic Advisers, December 2019.

**Figure VII: Annual Employment to Population Ratio[14], Parents of Children Under 6**

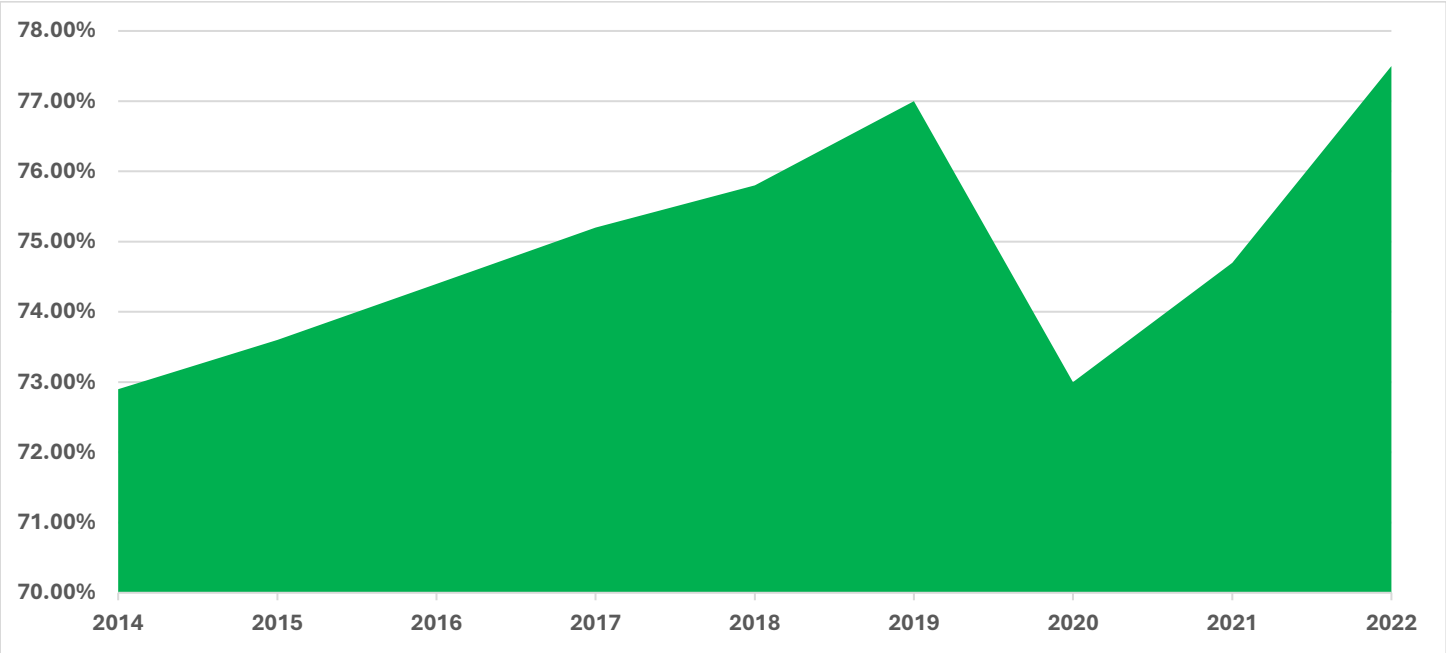



**Table XVIII: Annual Change in Employment/Population Ratio, Parents of Children Under 6**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|
| **Employment/Population Ratio** | 72.9 | 73.6 | 74.4 | 75.2 | 75.8 | 77 | 73 | 74.7 | 77.5 |
| **Percent Change from the Prior Year** | 1.53% | 0.96% | 1.09% | 1.08% | 0.80% | 1.58% | -5.19% | 2.33% | 3.75% |
| **Change from 2019** | N/A | N/A | N/A | N/A | N/A | N/A | -5.19% | -2.99% | 0.65% |

**2021 Residual Impact Adjustment and 2022 Recovery:** To measure the number of parents not in the workforce due to childcare constraints in 2021 and 2022, we again utilize the employment-to-population ratios in **Table XVIII** above. Both common sense and our review of the literature above would imply that childcare access conditions in 2021 were better than in 2020 yet still more challenging than pre-COVID in 2019. This is precisely the trend the BLS data shows: the employment-to-population ratio in 2021 marked a 2.33% improvement over 2020 but remained 2.99% lower than in 2019. We can add the last percentage (2.99) to our original 2019 Impact Estimate (13.6), yielding a total estimated impact of ***16.59%***. Translated into lost workers in LTADD, in 2021, an estimated ***2,607*** parents of children under the age of 6 were unable to join the workforce due to childcare barriers. Extending this rationale out through 2022, the estimates from US BLS do point to a more-or-less full recovery of workforce participation by parents of children under 6 from its COVID collapse. We adjust down, slightly, by a mere 0.65% to estimate the ratio of parents of children under the age of 5 who are "work willing" at 12.95%, the equivalent of ***2,035*** unfilled, full-time jobs in the region.

In summation, based on the latest available data and our review of national-level trends, we estimate that using 2024 population estimates for the region, there were ***2,035 parents*** in LTADD (+Hart County) who are ready and willing to return to the workforce should childcare become affordable/available. This number serves as the basis for the economic impact section that follows.

[14] From the Current Population Survey, as reported by the US Bureau of Labor Statistics, accessible at: https://www.bls.gov/data/home.htm

**Economic Impact: Returning Work-Willing Parents to the Labor Force**

For the final piece of our analysis, this section examines the economic impact of returning these 2,035 to the full-time workforce in the region. With a reasonable degree of confidence, we can estimate three unique economic components of returning these parents to the workforce: earnings, gross regional product (GRP), and tax revenue(s).

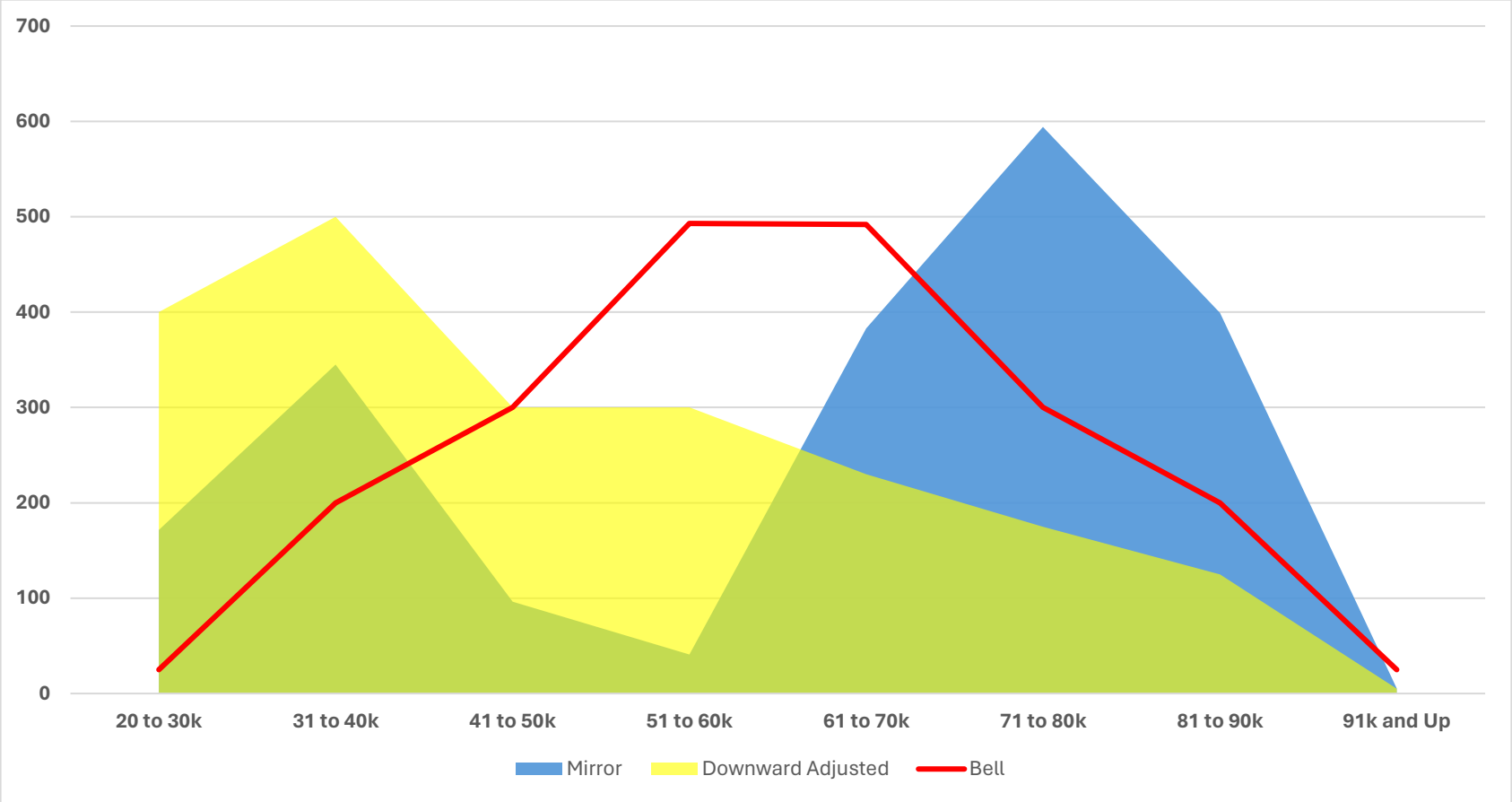
***Earnings:*** The annual wages paid to the parents who return to the workforce full-time. To calculate this figure, we rely on earnings data from the Quarterly Census of Employment and Wages (QCEW) program from the US Bureau of Labor Statistics, as reported by LightCast™.
***Gross Regional Product:*** GRP measures the value of new products and services generated/produced regionally annually, based on data from the US Bureau of Economic Analysis, as reported by LightCast™. Using a ratio of current employees to current GRP generated by industry, we isolate the GRP that an additional 2,035 employees could generate.
***Tax Revenue:*** Comprised of 2 components, the first is an estimate of additional state and local income tax revenue generated, based on the earnings of the retuning parents and the second the sales, import, and excise taxes paid by employers on the generated GRP in the region.

We take two unique approaches to determine a reasonable estimate of the economic impact, as measured by these three factors. The first assumes an even distribution of parents across industries that reflects the current workforce distribution. For example, since we know that 21.44% of all residents living in the region are employed in the government sector, we deduce that an identical percentage of the 2,035 Work Willing (499 parents) will return to the labor force in government sector jobs. This approach relies on the assumption that work-willing parents are a mirror reflection of the region's workforce, with the same distribution of industry employment and the average earnings of an industry's worker. For shorthand reference in the pages that follow, we refer to this first option as the "Mirror Model".

There is a risk, however, that assuming the average earnings of a work willing parent will be equivalent to the average annual earnings of all workers in the region ($62,047) will overestimate the economic impact of their return to the labor force. An argument could be made that if the average work-willing parent were qualified for a job that pays, on average, $62k per year, then that individual would likely already be in the workforce and able to afford childcare. While the financial circumstances of each individual differ and it may, or may not, be true that a salary that approaches this level allows a parent to pay for childcare, it is still vital that we establish an "adjusted down" model as well, to ensure that we are not, in fact, overstating the economic impact of returning these 2,035 parents to the workforce. To accomplish this, we re-assign the work willing parents at a higher-than-average rate into the industries with lower average annual wages, with the bulk of the assigned jobs falling under $60,000 in annual wages. Again, for shorthand reference, we refer to this as the "Downward Adjusted Model" in the pages that follow.

**Figure VIII** below shows the **Mirror** and **Downward Adjusted** Models, with the number of returning workers plotted by income bracket. Also included, as a point of reference, is a bell curve approximation (**red line**) that shows what a perfectly balanced distribution of workers around the salary midpoint would look like.

**Figure VIII: Mirror vs. Downward Adjusted Models, Distribution of Work Willing Parents by Salary**




Plotting these distribution models in the same graph highlights the significant differenc e between the 2. The blue shaded area, representing the Mirror Model, clearly skews the earnings of returning parents to the right of the graph, that is, towards jobs that are on the upper end of the region's average industry pay scale. The yellow shaded area, representing the Downward Adjusted Model, accomplishes the stated goal of skewing the average earnings of work willing parents toward the lower end of the pay scale, with the 1,200 of the identified 2,035 parents entering jobs making less than $50,000 annually. Table XIX below shows the number of assigned parents, by industry, of the 2 unique models, side-by-side, with the existing distribution of the workforce in the region (by percentage) and 2022 reported industry average earnings both included as points of reference.

**Table XIX: Employment Distribution and Median Wages by Industry, LTADD, 2023**

| Industry Details | | | | Mirror Model | | | Downward Adjusted Model | | |
|---|---|---|---|---|---|---|---|---|---|
| NAICS | Description | Percent of All Jobs in Region | Avg. Earnings Per Job | All Work Willing Parents | Single Mothers | Single Fathers | All Work Willing Parents | Single Mothers | Single Fathers |
| 11 | Agriculture, Forestry, Fishing and Hunting | 1.81% | $35,763 | 37 | 7 | 2 | 54 | 10 | 3 |
| 21 | Mining, Quarrying, and Oil and Gas Extraction | 0.24% | $89,134 | 5 | 1 | 0 | 3 | 1 | 0 |
| 22 | Utilities | 0.27% | $137,623 | 5 | 1 | 0 | 2 | 0 | 0 |
| 23 | Construction | 6.15% | $64,434 | 125 | 23 | 8 | 164 | 30 | 11 |
| 31 | Manufacturing | 18.56% | $81,974 | 378 | 68 | 24 | 125 | 23 | 8 |
| 42 | Wholesale Trade | 2.36% | $72,933 | 48 | 9 | 3 | 14 | 3 | 1 |
| 44 | Retail Trade | 10.61% | $39,755 | 216 | 39 | 14 | 313 | 57 | 20 |
| 48 | Transportation and Warehousing | 2.48% | $68,299 | 50 | 9 | 3 | 66 | 12 | 4 |
| 51 | Information | 0.81% | $80,625 | 16 | 3 | 1 | 4 | 1 | 0 |
| 52 | Finance and Insurance | 2.57% | $75,648 | 52 | 9 | 3 | 15 | 3 | 1 |
| 53 | Real Estate and Rental and Leasing | 1.15% | $57,208 | 23 | 4 | 2 | 30 | 5 | 2 |
| 54 | Professional, Scientific, and Technical Services | 2.83% | $75,219 | 58 | 10 | 4 | 17 | 3 | 1 |
| 55 | Management of Companies and Enterprises | 0.82% | $50,434 | 17 | 3 | 1 | 45 | 8 | 3 |
| 56 | Administrative and Support and Waste Management and Remediation Services | 4.35% | $45,954 | 89 | 16 | 6 | 234 | 42 | 15 |
| 61 | Educational Services | 0.38% | $41,573 | 8 | 1 | 0 | 21 | 4 | 1 |
| 62 | Health Care and Social Assistance | 10.18% | $61,515 | 207 | 37 | 13 | 269 | 49 | 17 |
| 71 | Arts, Entertainment, and Recreation | 0.58% | $23,179 | 12 | 2 | 1 | 23 | 4 | 1 |
| 72 | Accommodation and Food Services | 7.85% | $23,424 | 160 | 29 | 10 | 377 | 68 | 24 |
| 81 | Other Services (except Public Administration) | 4.54% | $30,667 | 92 | 17 | 6 | 133 | 24 | 9 |
| 90 | Government | 21.44% | $76,550 | 436 | 79 | 28 | 125 | 23 | 8 |
| 99 | Unclassified Industry | 0.04% | $55,565 | 1 | 0 | 0 | 1 | 0 | 0 |
| **ALL** | **TOTALS** | **100.00%** | **$62,047** | **2,035** | **368** | **131** | **2,035** | **368** | **131** |

These distributions of work willing parents across industries in the region are the basis for the economic impact estimates that follow, with the interaction between number of parents and the average industry wages yielding the first specific measure: parental earnings. Tables XX (Mirror Model) and XXI (Downward Adjusted Model) below show the calculation of wages earned for each of the 2 models, breaking out single mother and single father earnings (as a subset of the entire Work Willing population). Total earnings are calculated by multiplying the number of assigned industry workers by the average earnings per industry job.

**Table XX: Total Earnings by Industry, Work Willing Parents in LTADD, MIRROR MODEL**

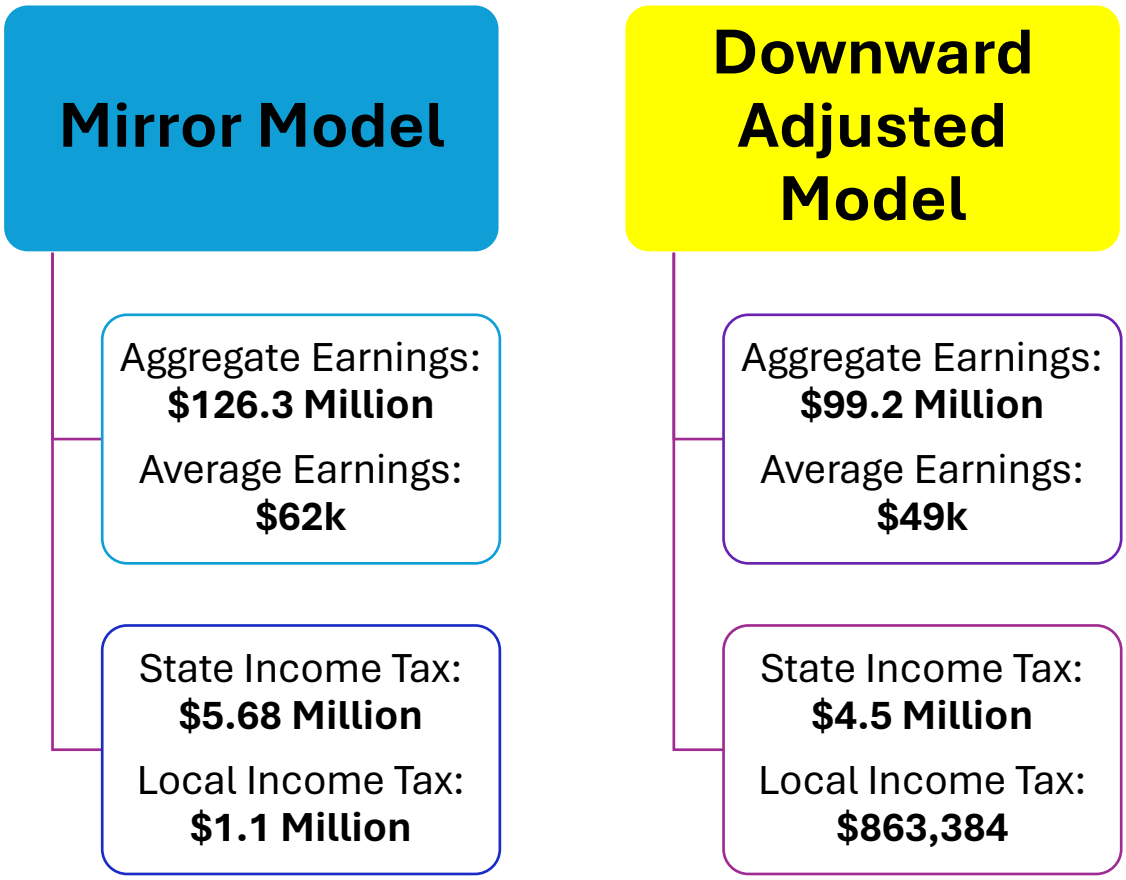
| NAICS | Description | Avg. Earnings Per Job | All Work Willing Parents | Total Earnings | Single Mother | Single Mother Earnings | Single Father | Single Father Earnings |
|---|---|---|---|---|---|---|---|---|
| 11 | Agriculture, Forestry, Fishing and Hunting | $35,763 | 37 | $1,317,276 | 7 | $238,210 | 2 | $84,798 |
| 21 | Mining, Quarrying, and Oil and Gas Extraction | $89,134 | 5 | $435,330 | 1 | $78,723 | 0 | $28,024 |
| 22 | Utilities | $137,623 | 5 | $756,170 | 1 | $136,742 | 0 | $48,677 |
| 23 | Construction | $64,434 | 125 | $8,064,076 | 23 | $1,458,270 | 8 | $519,113 |
| 31 | Manufacturing | $81,974 | 378 | $30,961,252 | 68 | $5,598,890 | 24 | $1,993,083 |
| 42 | Wholesale Trade | $72,933 | 48 | $3,502,680 | 9 | $633,409 | 3 | $225,480 |
| 44 | Retail Trade | $39,755 | 216 | $8,583,641 | 39 | $1,552,226 | 14 | $552,559 |
| 48 | Transportation and Warehousing | $68,299 | 50 | $3,446,914 | 9 | $623,324 | 3 | $221,890 |
| 51 | Information | $80,625 | 16 | $1,328,982 | 3 | $240,327 | 1 | $85,551 |
| 52 | Finance and Insurance | $75,648 | 52 | $3,956,353 | 9 | $715,449 | 3 | $254,684 |
| 53 | Real Estate and Rental and Leasing | $57,208 | 23 | $1,338,810 | 4 | $242,104 | 2 | $86,184 |
| 54 | Professional, Scientific, and Technical Services | $75,219 | 58 | $4,331,900 | 10 | $783,361 | 4 | $278,859 |
| 55 | Management of Companies and Enterprises | $50,434 | 17 | $841,592 | 3 | $152,190 | 1 | $54,176 |
| 56 | Administrative and Support and Waste Management and Remediation Services | $45,954 | 89 | $4,067,963 | 16 | $735,632 | 6 | $261,869 |
| 61 | Educational Services | $41,573 | 8 | $321,484 | 1 | $58,136 | 0 | $20,695 |
| 62 | Health Care and Social Assistance | $61,515 | 207 | $12,743,632 | 37 | $2,304,500 | 13 | $820,352 |
| 71 | Arts, Entertainment, and Recreation | $23,179 | 12 | $273,582 | 2 | $49,473 | 1 | $17,611 |
| 72 | Accommodation and Food Services | $23,424 | 160 | $3,741,925 | 29 | $676,673 | 10 | $240,881 |
| 81 | Other Services (except Public Administration) | $30,667 | 92 | $2,833,293 | 17 | $512,360 | 6 | $182,389 |
| 90 | Government | $76,550 | 436 | $33,399,071 | 79 | $6,039,734 | 28 | $2,150,014 |
| 99 | Unclassified Industry | $55,565 | 1 | $45,230 | 0 | $8,179 | 0 | $2,912 |
| **ALL** | **TOTALS** | **$62,060** | **2,035** | **$126,291,158** | **368** | **$22,837,910** | **131** | **$8,129,799** |

**Table XXI: Total Earnings by Industry, Work Willing Parents in LTADD, DOWNWARD ADJUSTED MODEL**

| NAICS | Description | Avg. Earnings Per Job | All Work Willing Parents | Total Earnings | Single Mothers | Single Mother Earnings | Single Fathers | Single Father Earnings |
|---|---|---|---|---|---|---|---|---|
| 11 | Agriculture, Forestry, Fishing and Hunting | $35,763 | 54 | $1,931,202 | 10 | $357,630 | 3 | $107,289 |
| 21 | Mining, Quarrying, and Oil and Gas Extraction | $89,134 | 3 | $267,402 | 1 | $89,134 | 0 | $0 |
| 22 | Utilities | $137,623 | 2 | $275,246 | 0 | $0 | 0 | $0 |
| 23 | Construction | $64,434 | 164 | $10,567,176 | 30 | $1,933,020 | 11 | $708,774 |
| 31 | Manufacturing | $81,974 | 125 | $10,246,750 | 23 | $1,885,402 | 8 | $655,792 |
| 42 | Wholesale Trade | $72,933 | 14 | $1,021,062 | 3 | $218,799 | 1 | $72,933 |
| 44 | Retail Trade | $39,755 | 313 | $12,443,315 | 57 | $2,266,035 | 20 | $795,100 |
| 48 | Transportation and Warehousing | $68,299 | 66 | $4,507,734 | 12 | $819,588 | 4 | $273,196 |
| 51 | Information | $80,625 | 4 | $322,500 | 1 | $80,625 | 0 | $0 |
| 52 | Finance and Insurance | $75,648 | 15 | $1,134,720 | 3 | $226,944 | 1 | $75,648 |
| 53 | Real Estate and Rental and Leasing | $57,208 | 30 | $1,716,240 | 5 | $286,040 | 2 | $114,416 |
| 54 | Professional, Scientific, and Technical Services | $75,219 | 17 | $1,278,723 | 3 | $225,657 | 1 | $75,219 |
| 55 | Management of Companies and Enterprises | $50,434 | 45 | $2,269,530 | 8 | $403,472 | 3 | $151,302 |
| 56 | Administrative and Support and Waste Management and Remediation Services | $45,954 | 234 | $10,753,236 | 42 | $1,930,068 | 15 | $689,310 |
| 61 | Educational Services | $41,573 | 21 | $873,033 | 4 | $166,292 | 1 | $41,573 |
| 62 | Health Care and Social Assistance | $61,515 | 269 | $16,547,535 | 49 | $3,014,235 | 17 | $1,045,755 |
| 71 | Arts, Entertainment, and Recreation | $23,179 | 23 | $533,117 | 4 | $92,716 | 1 | $23,179 |
| 72 | Accommodation and Food Services | $23,424 | 377 | $8,830,848 | 68 | $1,592,832 | 24 | $562,176 |
| 81 | Other Services (except Public Administration) | $30,667 | 133 | $4,078,711 | 24 | $736,008 | 9 | $276,003 |
| 90 | Government | $76,550 | 125 | $9,568,750 | 23 | $1,760,650 | 8 | $612,400 |
| 99 | Unclassified Industry | $55,565 | 1 | $55,565 | 0 | $0 | 0 | $0 |
| **ALL** | **TOTALS** | **$48,757** | **2,035** | **$99,222,395** | **368** | **$18,085,147** | **131** | **$6,280,065** |

When comparing these last 2 tables, the modeling did indeed perform as expected. Under the mirror model, returning all 2,035 Work Willing parents to the labor force results in cumulative earnings of ***$126,291,158***. By comparison, if we use the Downward Adjusted Model, these aggregate earnings for the same number of returning parents (2,035) fall to ***$99,222,395***. This represents a decrease in expected earnings of just under 22% for the Downward Adjusted Model, vis-à-vis the Mirror Model. The affiliated average annual salaries fall in the Downward Model as well, falling to $48,757 per parent ($62,060 in the Mirror Model). Armed with this total, we can now estimate the affiliated income tax generated by returning these parents to the workforce. Details appear in the pages below, but Figure IX highlights the final outcomes of our estimates for each model, side-by-side.

***Figure IX: Model Comparison, Earnings and Income Tax Impact***




The earnings calculated above, of course, are subject to a flat 4.5% personal income tax rate in the state of Kentucky. Applying this rate to the aggregated earnings of all parents returned to the workforce will generate an additional $4.04 to $5.68 million in annual state income tax revenue.

**Table XXII: Aggregate Earnings and State Income Tax, LTADD Work Willing Parents**

| | Mirror Model | | | Downward Adjusted Model | |
|---|---|---|---|---|---|
| | Annual Earnings | State Income Taxes | | Annual Earnings | State Income Taxes |
| **All Work Willing Parents (2,035)** | $126,194,624 | $5,678,758 | | $99,222,395 | $4,465,007 |
| **Single Mothers (368)** | $22,757,211 | $1,024,074 | | $18,085,147 | $813,832 |
| **Single Fathers (131)** | $7,968,175 | $358,568 | | $6,280,065 | $282,603 |

Extending this estimation one step further, Table XIX below distributes these additional aggregate earnings across the 8 counties in the region, based on the current percent of population in the region. Adding in local income tax rates, also reported below, we are able to estimate the local income tax gains that can collected by county governments in the region, if all 2,035 Work Willing parents return to work at full-time jobs. When appropriate, County tax rates are used. Based on their advice and local knowledge of LTADD officials, when a county has no tax rate, or is made up of municipalities charging different tax rates, for the sake of simplicity we estimate the percentage as 1.0%, marked with an asterisk in the table below.

**Table XXIII: Estimated Local Income Taxes, Work Willing Parents**

| County Details | | | Mirror Model | | | Downward Adjusted Model | |
|---|---|---|---|---|---|---|---|
| | Percent of Employment | Local Income Tax Rate | Aggregate Annual Wages Earned | Local Income Taxes, 2023 | | Aggregate Annual Wages Earned | Local Income Taxes, 2023 |
| **Breckinridge** | 3.88% | 1.00%* | $4,900,268 | $49,003 | | $3,852,908 | $38,529.08 |
| **Grayson** | 7.40% | 0.50% | $9,332,709 | $46,664 | | $7,337,981 | $36,690 |
| **Hardin** | 47.21% | 1.00%* | $59,571,588 | $595,716 | | $46,839,045 | $468,390 |
| **Hart** | 5.02% | 1.00%* | $6,334,733 | $63,347 | | $4,980,778 | $49,808 |
| **Larue** | 2.67% | 1.00%* | $3,368,869 | $33,689 | | $2,648,823 | $26,488 |
| **Marion** | 8.26% | 1.00% | $10,425,191 | $104,252 | | $8,196,961 | $81,970 |
| **Meade** | 5.19% | 1.00%* | $6,546,690 | $65,467 | | $5,147,432 | $51,474 |
| **Nelson** | 16.77% | 0.50% | $21,166,184 | $105,831 | | $16,642,226 | $83,211 |
| **Washington** | 3.60% | 0.75% | $4,548,690 | $34,115 | | $3,576,475 | $26,824 |
| **TOTAL** | **100%** | **N/A** | **$126,194,624** | **$1,098,083** | | **$99,222,395** | **$863,384** |

Based on our 2 models, we estimate that the annual local income taxes generated by returning 2,035 Work Willing parents to the labor force will range between ***$863,384 and $1,098,083***.

In addition to the wages earned by these parents and the income tax derived from these earnings, returning all 2,035 parents back to the workforce on a full-time basis has an important financial impact on regional employers as well. Table XXIV below quantifies exactly what this impact would be, by industry, based on 2022 GRP data, as provided by the US Bureau of Economic Analysis and reported by LightCast™. To calculate the GRP per Employee, we assume a linear relationship between the 2, dividing the total annual industry GRP by the total average industry employment, both for the years 2022 (latest available data). To estimate the additional GRP generated by Work Willing parents, we multiply this GRP per Employee number by the number of work willing parents returned to the industry's workforce.

**Table XXIV: Estimated Gains in GRP, Mirror vs. Downward Adjustment Models**

| Industry Details | | | | Mirror Model | | | Downward Adjustment Model | |
|---|---|---|---|---|---|---|---|---|
| NAICS | Description | 2022 GRP | GRP per Employee | Work Willing Parents | Additional GRP Generated | | Work Willing Parents | Additional GRP Generated |
| 11 | Agriculture, Forestry, Fishing and Hunting | $403,067,858 | $195,044 | 37 | $7,216,628 | | 54 | $10,532,376 |
| 21 | Mining, Quarrying, and Oil and Gas Extraction | $55,601,888 | $204,396 | 5 | $1,021,980 | | 3 | $613,188 |
| 22 | Utilities | $152,915,162 | $499,055 | 5 | $2,495,275 | | 2 | $998,110 |
| 23 | Construction | $589,772,131 | $84,124 | 125 | $10,515,500 | | 164 | $13,796,336 |
| 31 | Manufacturing | $3,807,618,090 | $179,996 | 378 | $68,038,488 | | 125 | $22,499,500 |
| 42 | Wholesale Trade | $762,585,780 | $282,980 | 48 | $13,583,040 | | 14 | $3,961,720 |
| 44 | Retail Trade | $826,843,804 | $68,394 | 216 | $14,773,104 | | 313 | $21,407,322 |
| 48 | Transportation and Warehousing | $261,552,519 | $92,500 | 50 | $4,625,000 | | 66 | $6,105,000 |
| 51 | Information | $219,178,756 | $237,822 | 16 | $3,805,152 | | 4 | $951,288 |
| 52 | Finance and Insurance | $534,692,756 | $182,301 | 52 | $9,479,652 | | 15 | $2,734,515 |
| 53 | Real Estate and Rental and Leasing | $313,541,058 | $239,833 | 23 | $5,516,159 | | 30 | $7,194,990 |
| 54 | Professional, Scientific, and Technical Services | $306,061,173 | $95,041 | 58 | $5,512,378 | | 17 | $1,615,697 |
| 55 | Management of Companies and Enterprises | $53,140,711 | $56,983 | 17 | $968,711 | | 45 | $2,564,235 |
| 56 | Administrative and Support and Waste Management and Remediation Services | $292,113,077 | $58,928 | 89 | $5,244,592 | | 234 | $13,789,152 |
| 61 | Educational Services | $19,823,785 | $46,120 | 8 | $368,960 | | 21 | $968,520 |
| 62 | Health Care and Social Assistance | $785,731,311 | $67,720 | 207 | $14,018,040 | | 269 | $18,216,680 |
| 71 | Arts, Entertainment, and Recreation | $24,224,921 | $36,774 | 12 | $441,288 | | 23 | $845,802 |
| 72 | Accommodation and Food Services | $344,136,568 | $38,449 | 160 | $6,151,840 | | 377 | $14,495,273 |
| 81 | Other Services (except Public Administration) | $234,716,408 | $45,363 | 92 | $4,173,396 | | 133 | $6,033,279 |
| 90 | Government | $2,942,757,500 | $120,424 | 437 | $52,625,288 | | 126 | $15,173,424 |
| **N/A** | **All** | **$12,930,075,257** | **$113,433** | **2,035** | **$230,574,471** | | **2,035** | **$164,496,407** |

Based on the estimates generated by these 2 models, returning 2,035 Work Willing parents to the workforce will generate between ***$164.5 Million and $230.6 Million*** annually for the region in gained Gross Regional Product (GRP). These estimated GRP gains have attached to them additional sales,

import, and property taxes which can be recouped by the federal, state, and local governments as well. Disaggregating these gains across the various levels of government is not possible, due to limitations in how the data is reported. However, based on the aggregated data collected by the US BEA, as reported by *Lightcast*™, we can estimate the total scale of these taxes, across all levels of government. The table below provides the calculation details, but in short, with the addition of 2,035 Work Willing parents to the labor force, there is an expected increase of ***between $14.6 and $24.8 Million*** annually in Sales, Import, and Property taxes.

**Table XXV: Additional Sales, Import, and Property Taxes Generated via Work Willing Parents**

| Industry Details | | | | Mirror Model | | | Downward Adjustment Model | |
|---|---|---|---|---|---|---|---|---|
| **NAICS** | **Description** | **2022 Taxes** | **Taxes per Employee** | **Work Willing Parents** | **Additional Taxes Generated** | | **Work Willing Parents** | **Additional Taxes Generated** |
| 11 | Agriculture, Forestry, Fishing and Hunting | $18,268,012 | $8,840 | 37 | $327,080 | | 54 | $477,360 |
| 21 | Mining, Quarrying, and Oil and Gas Extraction | $4,480,677 | $16,471 | 5 | $82,355 | | 3 | $49,413 |
| 22 | Utilities | $27,847,099 | $90,882 | 5 | $454,410 | | 2 | $181,764 |
| 23 | Construction | $6,807,501 | $971 | 125 | $121,375 | | 164 | $159,244 |
| 31 | Manufacturing | $646,936,156 | $30,582 | 378 | $11,559,996 | | 125 | $3,822,750 |
| 42 | Wholesale Trade | $376,999,512 | $139,897 | 48 | $6,715,056 | | 14 | $1,958,558 |
| 44 | Retail Trade | $158,335,143 | $13,097 | 216 | $2,828,952 | | 313 | $4,099,361 |
| 48 | Transportation and Warehousing | $7,200,440 | $2,546 | 50 | $127,300 | | 66 | $168,036 |
| 51 | Information | $17,164,115 | $18,624 | 16 | $297,984 | | 4 | $74,496 |
| 52 | Finance and Insurance | $11,499,638 | $3,921 | 52 | $203,892 | | 15 | $58,815 |
| 53 | Real Estate and Rental and Leasing | $26,495,386 | $20,267 | 23 | $466,141 | | 30 | $608,010 |
| 54 | Professional, Scientific, and Technical Services | $7,001,016 | $2,174 | 58 | $126,092 | | 17 | $36,958 |
| 55 | Management of Companies and Enterprises | $1,073,677 | $1,151 | 17 | $19,567 | | 45 | $51,795 |
| 56 | Administrative and Support and Waste Management and Remediation Services | $5,793,735 | $1,169 | 89 | $104,041 | | 234 | $273,546 |
| 61 | Educational Services | $609,484 | $1,418 | 8 | $11,344 | | 21 | $29,778 |
| 62 | Health Care and Social Assistance | $14,718,504 | $1,269 | 207 | $262,683 | | 269 | $341,361 |
| 71 | Arts, Entertainment, and Recreation | $2,883,209 | $4,377 | 12 | $52,524 | | 23 | $100,671 |
| 72 | Accommodation and Food Services | $40,803,639 | $4,559 | 160 | $729,440 | | 377 | $1,718,743 |
| 81 | Other Services (except Public Administration) | $15,515,459 | $2,999 | 92 | $275,908 | | 133 | $398,867 |
| 90 | Government | $0 | $0 | 437 | $0 | | 126 | $0 |
| **N/A** | **All** | **$1,390,432,402** | **N/A** | **2,035** | **$24,766,140** | | **2,035** | **$14,609,526** |

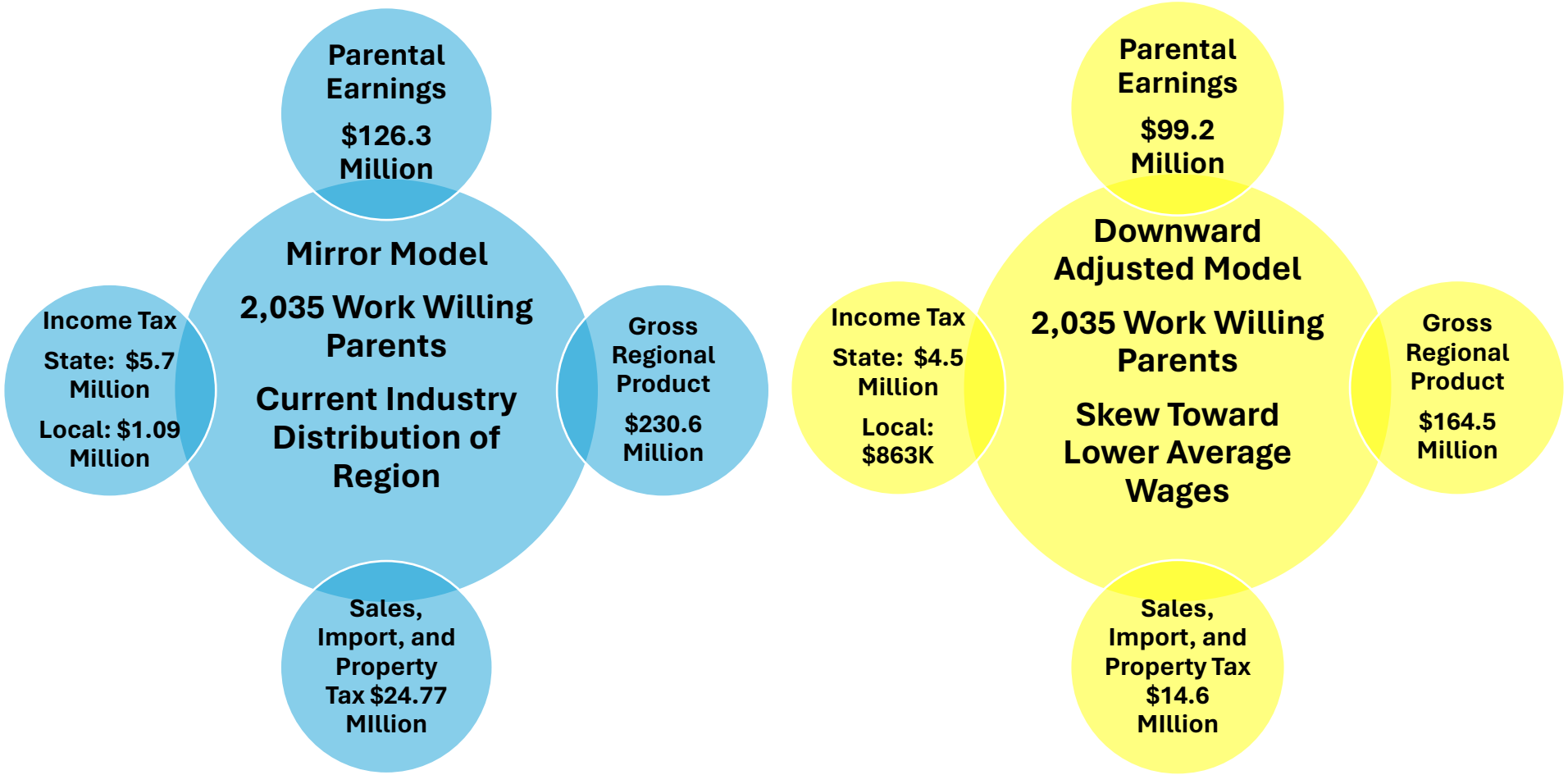
**Summary of Impact Modeling**

In review, we have calculated the economic impact of returning 2,035 "Work Willing" parents to full-time jobs in the LTADD region (plus Hart County). To ensure our estimates are accurate, we have used the latest available data from the US Census Bureau, US Bureau of Economic Analysis, US Bureau of Labor Statistics, with additional input from models and reporting by the data platform LightCast™. To further refine these data points, we have also adjusted the future workforce- and the count of parents who will need childcare- to account for the arrival of the Blue Oval SK Battery Park, adding 2,500 jobs in 2024 and an additional 2,500 jobs in 2025. To estimate the final number of work- willing parents (2,035), we relied on a 2017 study from the President's Council of Economic Advisors and, triangulating this initial study to Labor Force Participation rates for parents of children under 6, updated the methodology to reflect changes during, and after, the COVID-19 pandemic.

The economic impact itself was calculated in two unique ways, which we refer to as the ***Mirror*** and ***Downward Adjustment Models***. The Mirror Model assumes that the population of work-willing parents will be a more-or-less perfect reflection of the currently employed workforce in the region. They are presumed to have the same distribution of skills and abilities as the population and are distributed across the region's existing industries in a manner that mirrors the current industry distribution of all employees. For example, since 10.6% of all workers in LTADD are employed in the Retail Trade industry, we also assume that 10.6% of all work-willing parents (216) will re-enter the workforce as Retail Trade employees. To ensure that this model, which can skew average salaries higher, does not overstate the economic impact of these parents, we also include a Downward Adjustment Model. In this version, we overweight industries with lower average annual wages as likely entry points for returning parents. Again, considering Retail Trade, as an example, in the Downward Adjustment Model we assign 313 (15.3%) of all Work Willing parents to the industry, at a rate nearly 50% higher than the population.

Constructing two separate models allows for a reasonable range of projected economic impact of between ***$288.36 million and $388.46 million*** that can be unlocked by ensuring affordable childcare is available for the 2,035 local parents, ready and able to return to the workforce full-time. Figure X below breaks out these gains, side-by-side, estimated by the two models, while Figures XI and XII highlight the scaled impact of gradually returning these parents to the workforce.

**Figure X: Total Impact, Work Willing Parents in LTADD, Mirror vs. Downward Adjusted Models**



**Recommendations**

To unlock the potential of Work-Willing parents in the LTADD region, we end this report with some recommendations and reflections on the next steps. The challenge of childcare looms large across the country, and multiple initiatives are already underway outside the region that can be utilized in LTADD to address childcare shortages and affordability. Based on our review of national, regional, and local reviews, we organize these potential solutions into four levels: Kentucky-based, Employer-based, childcare facility-based, and LTADD-based. Any of these approaches, of course, will require further examination and planning before implementation. Recommendations provide avenues for discussion at local, regional, and state levels to prepare LTADD stakeholders a path forward on addressing childcare impact challenges for working parents.

***Kentucky-Based Solutions***

**1) 2024 Regular Session House Bill 561**

House Bill 561, "AN ACT relating to child care," introduces a program to create "Certified Child Care Community Designation." This designation would foster support for local governments to identify zoning barriers and amend regulations to support existing or new childcare facilities for future expansions. The Certified Child Care Community Designation would cultivate opportunities for local elected officials, childcare businesses, major employers, and other key community stakeholders, like the LTADD, to address pressing childcare needs in Kentucky. House Bill 561 passed out of the Senate on March 21st.

**2) The Employee Childcare Assistance Partnership Program**

House Bill 499 from the 2022 Regular Session established the *Employee Childcare Assistance Partnership Program*. Started in July 2023, the cost-share program is a partnership between employees, employers, and the Kentucky Cabinet for Health and Family Services. The state match percentage is based on the employee's household income compared to the State Median Household Income (SMI). The percentage of the match decreases based on how high the family's income rises above the SMI. This program allows employers to effectively double the size of an employee benefit while making childcare more affordable.

**3) Child Care Assistance Program (CCAP) Subsidy for Child Care Employees**

As of October 2022, Kentucky began awarding childcare subsidies for all employees who work in licensed and certified childcare programs, regardless of income. All childcare employees are now considered a "protected population', granting them eligibility to be served through the CCAP subsidy program. Widening the eligibility criteria for childcare employees allows providers to accommodate larger benefits packages while supporting childcare programs. This program can be used as both a recruiting tool and a way to boost the earnings of childcare staff, improving retention rates for already-employed workers. Capitalizing on the existence of this program is a means to encourage industry growth and, relatedly, reduce the deficit of available childcare seats for working parents.

**4) The Early Childhood Development Scholarship**

In March 2022, the Governor of Kentucky announced the Early Childhood Development Scholarship, which supports childcare providers in furthering their education in early childhood instruction. The scholarship covers tuition and mandatory fees up to $6,305 per semester and is available to those who work at least 20 hours per week in a participating early childhood facility. Again, appropriately applied, this can be both an attraction and retention tool for the next generation of childcare workers. Folded into a broader strategy of building career pathways, improving pay and benefits, and growing an entrepreneurial mindset in would-be new childcare workers can again contribute to the industry's growth and number of available seats for working parents.

E***mployer-Based Solutions***

**1) Implement Employee Assistance Programs**

Employee Assistance Programs (EAPs) are voluntary, work-based programs offering free and confidential assessments, short-term counseling, referrals, and follow-up services to employees with personal and/or work-related problems.[15] Some businesses are beginning to formalize childcare and childcare support networks and resource hubs as part of a broader approach to the traditional EAP. This low-to-no-cost solution would provide a formal network of working parents to support each other and allow the business to gain feedback and insight into childcare-based challenges and solutions from its employees. By tapping into a potential forum for parents to express concerns and challenges- and crowd source solutions- employers can not only remain a fully engaged participant in the ongoing dialogue but can be at the forefront of new solution implementation.

**2) Provide Flexible Scheduling**

The COVID-19 pandemic exposed a new wave of remote work and the potential for employers to adapt to a more flexible work environment. Flexible scheduling adjusts work shifts to accommodate the childcare needs of working parents. The U.S Chamber of Commerce Foundation suggests first determining the scheduling gaps of working parents and seeking out opportunities to implement flexibility. Once implemented, track the impact of flexible scheduling to understand how those changes retain working parents.[16] Manufacturing employers, often running multiple shifts, have had some success with "micro-scheduling" and self-scheduling apps, allowing employees to work split or extended shifts, working together via a real-time scheduling app to ensure full coverage of all shifts. Employees who prefer to work a standard shift, with regular days off retain that ability, and often serve as the backbone of the scheduling process. The micro or split shift employees fill in the gaps in the calendar, allowing parents, for example, to be home before and after school, or until their partner is available to look after their child.

**3) Offer Childcare Subsidies**

Another opportunity to combat accessibility and cost is that employers can utilize childcare-based subsidies like *Dependent Care Flexible Spending Accounts* (DCFSAs) or vouchers for local/preferred childcare facilities. DCFSAs are considered pre-tax accounts used to pay for eligible dependent care. Additionally, providing working parents vouchers for childcare providers could reserve a certain number of spots, possibly with discounted employee rates.[17] The U.S Chamber of Commerce *Employer Guide to Childcare Assistance and Tax Credits* [18]has additional insight on other employer-provided subsidies and employee tax credit options. While certainly this would add an additional benefit, and affiliated expense, for employers and questions of reciprocity for employees without childcare needs should be considered, the net benefit- which we lay out above in terms of additional GRP generated- of attracting or retaining new employees not otherwise available/possible will certainly outweigh the cost to employers.

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[15] (n.d.). *Employee Assistance Program (EAP)*. U.S Office of Personnel Management. Retrieved January 26, 2024, from https://www.opm.gov/frequently-asked-questions/work-life-faq/employee-assistance-program-eap/what-is-an-employee-assistance-program-eap/

[16] (n.d.). *Employer Roadmap Childcare Solutions for Working Parents*. U.S Chamber of Commerce Foundation. Retrieved January 26, 2024, from https://chamber-foundation.files.svdcdn.com/production/documents/ECE-Employer-Roadmap_March-2022_web.pdf?dm=1704748799

[17] (2022, April 28). *Employer Guide to Childcare Assistance and Tax Credits*. U.S Chamber of Commerce. Retrieved January 26, 2024, from https://www.uschamber.com/workforce/employer-guide-to-childcare-assistance-and-tax-credits

[18] Shrove, J. (2022, April 28). *Employer Guide to Childcare Assistance and Tax Credits*. U.S Chamber of Commerce. Retrieved February 22, 2024, from https://www.uschamber.com/assets/documents/024285_Fed_Childcare-Guide_v2.pdf

**4) Explore Nontraditional Solutions for Working Parents**

Although every industry faces some working parent challenges, frontline employees, shift workers, or parents working non-traditional hours are the most at risk of facing harsher barriers to accessible childcare. Employers engaging in non-traditional operating hours should consider non-traditional solutions for working parents to retain the labor force and increase employee productivity. Micro-shifts, self-scheduling, hybrid work schedules, and short-term childcare support options are all examples that could be explored, depending on the size, needs, and location of the employer.

**5) On-Site/Near-Site Childcare Centers**

On-site childcare addresses the access and affordability of working parents. Although this solution would require significant investment and time, it would provide long-term solutions for working parents- and provide a valuable benefit to attract and retain talent for employers. The U.S Chamber of Commerce Foundation recommends first assessing the needs of working parents, creating a "task force" to oversee the initiative, thoroughly researching the internal capacity for an on-site center, launching the program, and tracking the facility's impact. Additionally, consider how to offset the cost of the center by utilizing existing subsidies, grants, and tax credits and incentives.[19] Co-operative agreements between multiple employers to fund, for example, a childcare center as part of an industrial park, are also a viable option to split the cost among a consortium of employers, often in exchange for a guaranteed number of seats.

**6) Partner with Backup Care Providers**

Backup care provides for unforeseen or sudden changes that impact childcare arrangements and entails, in short, that the employer retains a pool of available, certified, and bonded in-home childcare providers. When the unexpected occurs, like a sick child being sent home from daycare or when the partner of the employee is unexpectedly detained at their job, the employee can request a free (or reduced cost) provider from the pool to step in and allow the employee to report to work, on-time. This short-term solution could directly impact absenteeism and missed shifts of working parents. Interested employers would need to identify if there is a direct need for backup care, providers, and the financial commitment to implement the program. Again, consortia of employers can pool resources to reduce the cost/burden of retaining such a service. Two examples of backup care include Amazon and Johns Hopkins University.

**7) Address Equitable Return to Work Strategies**

Since the COVID-19 pandemic, there has been a significant shift in the number of women and working mothers leaving the workforce. The National Women's Law Center suggested 1 million fewer women in the workforce in January 2022 than in February 2020[20]. Because of the national childcare crisis, many working mothers have not returned to work due to the lack of affordable, accessible, and reliable childcare. Because working mothers were (and still are) making less than men[21], it made financial sense for mothers to remain at home as primary caregivers.

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[19] (n.d.). *Employer Roadmap Childcare Solutions for Working Parents*. U.S Chamber of Commerce Foundation. Retrieved January 26, 2024, from https://chamber-foundation.files.svdcdn.com/production/documents/ECE-Employer-Roadmap_March-2022_web.pdf?dm=1704748799

[20] Tucker, J. (2022, February 1). *Men Have Now Recouped Their Pandemic-Related Labor Force Losses While Women Lag Behind*. National Women's Law Center. Retrieved February 22, 2024, from https://nwlc.org/wp-content/uploads/2022/02/January-Jobs-Day-updated.pdf#:~:text=The%20most%20recent%20Bureau%20of%20Labor%20Statistics%20%28BLS%29,have%20caused%20continued%20school%20and%20child%20care%20disruptions.?msclkid=c3b59dbfb4d911eca4104e48711ae748

[21] (2023, January 25). *Median earnings for women in 2022 were 83.0 percent of the median for men*. U.S. BUREAU OF LABOR STATISTICS. Retrieved February 22, 2024, from https://www.bls.gov/opub/ted/2023/median-earnings-for-women-in-2022-were-83-0-percent-of-the-median-for-men.htm

To reengage working mothers, employers must reconsider equitable return to work strategies, including attraction bonuses and a transparent, equitable pay scale.

**8) Eliminate Bias in the Hiring Process**

Relatedly, because working mothers have been out of the workforce for a couple of years, if not more, they will most likely have employment gaps on their resumes. This can be an intimidating aspect for women during the application process that could lead to qualified candidates walking away from open positions. Human Resource managers, recruiters, and talent acquisitionists should review and be aware of any conscious and unconscious biases in the recruitment and hiring processes and job descriptions to support and hire working mothers.

**9) Offer "Returnships" or Professional Development Opportunities**

"Returnships" are not a new talent engagement tool but have been a highly effective return-to-work strategy, specifically for targeting women and working mothers. The University of Texas defines returnships as, "short-term engagements for professionals who want to re-enter the workforce after an extended period. Unlike internship applicants, returnship candidates are usually more experienced professionals with significant work history. They may need to reacquaint themselves with changes in their field, or with new technology, but they have a strong working knowledge of their discipline, and are usually paid for their time as a result."[22] These type of initiatives provide returning mothers/parents who have been away from the workforce for an extended period of time the chance to reacquaint themselves with their field. They provide employers a short-term opportunity to evaluate potential candidates and make offers of full-time, permanent employment based on firsthand reviews of performance and ability.

**10) Establish Equitable Pay Improvement Strategies**

Because many working mothers were considered the lower-income providers to their male counterparts, many women left to be the primary caregivers for their children during the pandemic. To reengage with working mothers, businesses must focus on equal compensation for work of equal value. By conducting periodic pay equity audits, businesses can ensure employees of comparable experience and roles are paid the same regardless of gender or race[23].

**11) Establish Gender Diversity KPI Goals**

By establishing gender diversity Key Performance Indicators (KPIs), businesses can actively address critical gender gaps and equal representation across their labor force and provide opportunities for working mothers to return to the workforce. To determine what KPIs could be established to support women in the workplace, the Boston Consulting Group recommends five key metrics[24]: Pay, Recruitment, Retention, Advancement, and Representation. In addition to developing action steps and gauging performance, the BCG also recommends strong and active support should be driven by executive leadership of the business, not just within the Human Resources activities. Intentionally engaging women and mothers as part of corporate planning initiatives ensures that solutions for the unique needs of parents of young children are a top-of-the-agenda concern.

***Childcare Facility-Based Solutions***

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[22] The University of Texas at Austin (n.d.). *The Comprehensive Guide to Returnships: What They Are and How to Secure One*. University of Texas at Austin Boot Camps. Retrieved February 26, 2024, from https://techbootcamps.utexas.edu/blog/the-comprehensive-guide-to-returnships/

[23] Shmidt, I. (2022, July 13). *Five Ways To Bring Women Back Into The Workforce After A Career Break*. Forbes. Retrieved February 26, 2024, from https://www.forbes.com/sites/forbesbusinesscouncil/2022/07/13/five-ways-to-bring-women-back-into-the-workforce-after-a-career-break/?sh=46b06422543c

[24] Abouzahr, K., Krentz, M., Yousif, N., & Van Der Kolk, L. (2018, April 3). *Measuring What Matters in Gender Diversity*. The Boston Consulting Group. Retrieved February 26, 2024, from https://www.bcg.com/publications/2018/measuring-what-matters-gender-diversity

**1) Address Compensation and Fiscal Stability**

One opportunity to recruit and retain qualified, experienced educators is increasing early childcare caregivers' salaries and fiscal stability. However, this is challenging due to the complexity of balancing affordable childcare for working families and providing livable wages for caregivers, both while trying to operate a profitable childcare business. Compensation does, however, remain a critical flaw in the U.S. early childcare system, but it has received state and federal investments in recent years and momentum is building across the country for governments to invest in the childcare infrastructure just as it would the physical infrastructure of the state: as a cost of doing business. States and local communities nationwide should utilize salary/wage scales for the early childhood educator workforce, remaining vigilant in their review of current wages to the rates of pay across the region. The scales are intended to provide states and cities with the knowledge to develop salary scales for the early childhood workforce that can improve the livelihood of childcare providers, in concert with overall upward wage and/or inflationary pressure in the region.[25]

**2) Support Career Advancement Initiatives**

Another identified barrier to childcare workers is access to career advancement opportunities. Kentucky has made headway by offering the Early Childhood Development Scholarship but there are other avenues available to expand support of career development in early education. For example, The National Center on Early Childhood Development, in their report "*The Early Childhood Workforce: Career Pathway Goals and Strategies for Developing, Improving, and Evaluating Higher Education Articulation Agreements*[26]" recommends two specific strategies to support career pathway development:

1) Strengthen competency-based qualification requirements for all care and education professionals working with children from birth through age 8.
2) Develop and implement comprehensive pathways and multiyear timelines at the individual, institutional, and policy levels for transitioning to a minimum bachelor's degree qualification requirement, with specialized knowledge and competencies, for all lead educators working with children from birth through age 8.

The report recommends that caregivers and childcare facilities develop professional development goals and strategies specifically built for career growth and development, within the industry. The study itself offers additional resources and examples to include as part of an implementation plan.

3) **Improve Staff Wellness and Job Satisfaction**

The Administration for Children and Families recommends childcare facilities support staff wellness[27] by improving the work environment and creating a healthy and safe environment for staff and children. Strategies include addressing the importance of staff psychological well-being, maximizing job satisfaction opportunities, and developing a culture of overall organizational wellness.

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[25] Harriet Dichter and Ashley LiBetti, Improving Child Care Compensation Backgrounder October 2021, (The BUILD Initiative, 2021), available at https://buildinitiative.org/resource-library/backgrounder-on-compensation-in-child-care

[26] National Center on Early Childhood Development, Teaching, and Learning (n.d.). *Early Childhood Workforce: Career Pathway Goals and Strategies for Developing, Improving, and Evaluating Higher Education Articulation Agreement*. Retrieved February 1, 2024, from https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/early-childhood-workforce-articulation-strategies.pdf

[27] (2022, September 13). *Staff Wellness Initiatives*. Office of Early Childhood Development An Office of the Administration for Children & Families. Retrieved February 1, 2024, from https://www.acf.hhs.gov/ecd/staff-wellness-initiatives

**4) Consider Expanded Services Through Childcare Service Networks**

The Administration for Children and Families[28] recommends that childcare facilities develop local, regional, or state childcare networks to create opportunities for growth and support for childcare providers. By combining resources, services, or other integrations, childcare facilities can create a strong, unified network to expand shared resources of the existing early childhood care system. Some options can also be seen as gains, via the efficiency of scale, driving down shared administrative costs for a network of providers. A common payroll or HR team, for example, is one approach to reduce administrative overhead and, in some cases, better employee service.

**5) Explore Overnight/Multiple Shift Care Services**

Although beneficial for shift parents, overnight care is a challenging solution for providers to implement. Overnight care is simply an opportunity to leave children overnight or during non-traditional working hours with a credible childcare facility. Similarly to backup care, employers would need to identify the needs of employees and the impact of working with partners and providers to establish this care option. Additionally, working with other employers to identify overnight care needs could lead to developing partnerships and overnight care programs with local providers. *Wonderschool* provides an overview of how overnight childcare[29] can support working parents.

**6) Utilize State and Federal Business and Community Childcare Grant & Tax Credit Initiatives**

Funding can be one of the biggest hurdles for childcare facilities when they remain committed to providing affordable care for working parents or expanding operations in general. The Kentucky Chamber of Commerce[30] curated a list for employers and business owners (including childcare facilities) to utilize as a source for state and federal tax incentives related to childcare and a collection of other community resources.

***LTADD Specific Solutions***

Because of the Kentucky Area Development District (ADD) structure, the Lincoln Trail ADD (and the ADD network) would be an excellent opportunity to promote regional solutions to childcare challenges. Below are opportunities for LTADD to support state solutions and advocate other solutions locally.

**1) Support Early Childhood Career Apprenticeships**

The Kentucky Governor's Office of Early Childhood and the Office of Employer Apprenticeship Services has expanded a registered apprenticeship program through its "Early Childhood Apprenticeship Portfolio"[31], which provides pre-service and in-service professional development opportunities while working. The state of Kentucky currently offers three apprenticeship career pathways: Child Care Development Specialist, Early Childhood Educator, and Early Childhood Administrator Director. As of February 1, 2024, there are four registered sponsor programs for the early childhood apprenticeship program in the LTADD: three in Nelson County and one in Hardin County. All four sponsor programs host "Child Care Development Specialists," although only one of the four

[28] (n.d.). Expanded Services. The Administration for Children and Families. Retrieved February 12, 2024, from https://www.acf.hhs.gov/ecd/expanded-services

[29] (n.d.). What You Need to Know About Overnight Daycare. Wonderschool. Retrieved February 12, 2024, from https://www.wonderschool.com/p/parent-resources/overnight-daycare/

[30] (n.d.). *Child Care Resources for the Kentucky Business Community*. Kentucky Chamber of Commerce. Retrieved February 12, 2024, from https://www.kychamber.com/sites/default/files/pdfs/Child%20Care%20Resources%20for%20the%20Kentucky%20Business%20Community%208-10-22%20(003).pdf

[31] (n.d.). Workforce Apprenticeships. Kentucky Governor's Office of Early Childhood. https://kyecac.ky.gov/workforce/Pages/Apprenticeships.aspx

sponsors has "active apprentices." Working to expand this network by building on pre-existing relationships with partners throughout the region is a practical next step.

**2) Engage In Public Advocacy and Policy**

Understanding what challenges local advocacy groups are addressing and the steps they are taking, or interested in taking, is another way to support regional early childhood education goals and strategies. Partnering with the local Kentucky Department for Community-Based Services groups, such as the Salt River Team, can help gain critical insight into childcare gaps and promote regional and state-based resources, such as promoting free access to *Brightwheel Childcare Management* software to all licensed and certified childcare programs[32]. The Center of American Progress provides a holistic approach to supporting early childhood education with other critical development aspects, including health, housing, education, and economic well-being.[33] Increasingly, local and regional economic development agencies have been the primary drivers of Childcare solutions initiatives, convening disparate stakeholders in a structured environment to formalize relationships, establish goals, strategies, and tactics, and ensure forward momentum and regular process. LTADD is in a strong position, with its network of partners and employers, to lead the formation of a regional alliance charged with developing meaningful and actionable steps to address childcare challenges in the region.

**3) Recognize the Role Affordable Housing Plays in Childcare Solutions**

In addition to addressing public policy, the Bipartisan Policy Center also suggests critically addressing housing issues that affect childcare challenges. The Bipartisan Policy Center recommends that local, regional, and state partners work with housing experts to identify cross-sectoral solutions to increase access to childcare and consider affordable housing options.[34] GIS mapping initiatives can help identify childcare deserts, and a focus on expanding safe, affordable housing with on-site (or near-site) childcare centers, often at subsidized rates for property residents, can ensure a targeted, effective increase in capacity where the region needs it most.

**4) Support Zoning Regulation Updates**

To combat childcare provider shortages, cities in the LTADD should review and update zoning ordinances to ease zoning restrictions for developing or expanding early childcare facilities. Identifying zoning barriers and loosening restrictions can support the growth of local childcare facilities. In this 2022 "Making Space Matter in Your State or Jurisdiction Toolkit[35]," the *Local Initiatives Support Corporation* (LISC) provides three state-based examples and three local examples (including the City of Louisville) on the impact of reducing red tape for childcare facility developments and how that increases early childcare accessibility for working parents. Loosening restrictions can encourage entrepreneurial growth in the industry, leading to additional centers (often in underserved communities), with additional seats resulting in more parents returning full-time to the workforce.

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[32] (2023, December 1). *Announcing: FREE access to brightwheel childcare management software!* ChildCare Aware of Kentucky. Retrieved February 1, 2024, from https://www.childcareawareky.org/announcing-free-access-to-brightwheel-childcare-management-software/

[33] (2023, June 29). *Strengthening Early Childhood Health, Housing, Education, and Economic Well-Being Through Holistic Public Policy*. The Center for American Progress. Retrieved February 12, 2024, from https://www.americanprogress.org/article/strengthening-early-childhood-health-housing-education-and-economic-well-being-through-holistic-public-policy/

[34] Smith, L. K., & S. T. (2020, February 6). *Looking Beyond Child Care: New Solutions Through Affordable Housing*. Bipartisan Policy Center. Retrieved February 12, 2024, from https://bipartisanpolicy.org/blog/looking-beyond-child-care-new-solutions-through-affordable-housing/

[35] (2022, December 6). *Making Space Matter in Your State or Jurisdiction Toolkit*. Local Initiatives Support Corporation (LISC). Retrieved February 1, 2024, from https://www.lisc.org/media/filer_public/31/93/31930641-aafd-4ce9-b3c5-556258d2ba5c/15_supportive_zoning_practices_120622.pdf

**5) Support Child Care Business Incentive Grants & Initiatives**

The state of Iowa, for example, supports the "Child Care Business Incentive Grant Program" in conjunction with the Iowa Department of Workforce Development and the Iowa Department of Health and Human Services. This grant incentivizes employers to offer or expand childcare options as an employee benefit. Since the January 2023 launch of the fund, $443,234 has been awarded to eleven participating businesses that created seventy-seven new childcare slots.[36] The Golden Shovel Agency also provides "Childcare expansion best practices," which include multiple county-level examples to expand local childcare resources.[37] Working with the state or regional philanthropic or community-based organizations to establish and fund such a program could help with the initial incentivization needed to encourage greater employer support for childcare subsidies for their workers.

**6) Act As a Regional Administrator**

To lessen the administration burden of the Employee Child Care Assistance Partnership (ECCAP) Program, LTADD could assist in the administration aspects of recruiting and enrolling both childcare facilities and employers to the ECCAP program and support the Kentucky Cabinet for Health and Family Services staff in terms of administrative functions at the local level. The Michigan Tri-Share Child Care Program utilizes the "regional facilitator hub" model. Currently, twelve regional hubs oversee regional administrative and recruitment tasks across Michigan[38]. Sioux Falls Thrive[39] also provides nontraditional childcare solution resources and examples for its business community that may benefit Lincoln Trail employers who engage in nontraditional operational hours. While the form and function of these types of administrative co-op programs vary, and are, of course, dependent on the staff, time, and resources of the agency, facilitating the launch of such a program, with a pre-defined exit date, could kickstart such a program that could stand on its own with separate funding.

**Conclusion**

While the challenges facing the Childcare Industry, and all those who depend on it, are many, the opportunity to change the system for the better is also great. Childcare touches on every other industry in a region, and without affordable, reliable access for all interested parents, the economy of a region will suffer. This impact has been magnified over the last decade, with a healthy, low unemployment rate (vis-à-vis other eras and except for the peak COVID-19 timeframe), employers have had to work harder than ever before to attract and retain a qualified workforce. The untapped resource that is the region's collection of Work Willing parents could assuage a significant amount of pressure on employers, if supported properly.

In the pages above, we highlight how much, precisely, the region is losing in terms of wages, taxes, and GRP, with an estimated 2,035 work-willing parents still on the sidelines and not in the labor force. These factors, measuring the initial impact of returning them to the workforce, do not consider the ripple effect of additional dollars in the

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[36] (2023, January 9). Governor Reynolds Awards Second Round Of Child Care Business Incentive Grants. Future Ready Iowa. Retrieved March 8, 2024, from https://www.futurereadyiowa.gov/governor-reynolds-awards-second-round-child-care-business-incentive-grants

[37] (2024, March 4). Childcare Expansion Best Practices. Golden Shovel Agency. Retrieved March 8, 2024, from https://www.goldenshovelagency.com/news/p/item/55320/childcare-expansion-best-practices?utm_campaign=2024%20Newsletters&utm_medium=email&_hsmi=297421108&_hsenc=p2ANqtz--QlZnHuGeQGQrEJxW4F9QKuw_8NvCNpK0lMLLcgzdHFjZImQxZHzKSWDhvsefw5zSzGtvUqsQ446WEdNluM70Ud2ZLw&utm_content=297421108&utm_source=hs_email

[38] (n.d.). *MI Tri-Share Child Care Region Search*. Michigan Department of Lifelong Education, Advancement, and Potential. Retrieved February 1, 2024, from https://www.michigan.gov/mileap/early-childhood-education/mi-tri-share-child-care/mi-tri-share-regions-search

[39] (n.d.). *Childcare Initiative Report*. Sioux Falls Thrive. Retrieved February 12, 2024, from https://siouxfallsthrive.org/childcare-report-2023/

community. Parents making enough money to afford childcare will spend a particular portion of their paychecks in the community- buying clothing, dining out, attending events, and upgrading their housing. This ripple effect multiplies their return to the workforce and will, of course, result in additional regional jobs and increased demand for goods and services.

The benefits of re-engaging this lost workforce in the region, in short, are many. The recommendations provided above can serve as an initial set of guideposts for officials eager to do something to address the challenges in the region. A collaborative, inclusive approach with as many community representatives, parents, employers, and partners at the table as possible will ensure that the solutions for LTADD are unique and functionally successful for the region's unique environment.

**Appendices**

Appendices A-D below represent the implementation matrices of solutions based on the recommendations section above. In the matrices, each recommendation is paired with local, regional, and/or state stakeholders needed to accomplish that specific recommendation. Outcomes suggest the impact the recommendation will have on the associated stakeholders, the childcare landscape, and the region's economic conditions if the recommendation is accomplished. The level of complexity suggests how difficult the recommendation may be to achieve. The timeline suggests when the recommendation should be performed within five years. Depending on the local support for the recommendations, represented industries of involved stakeholders, and local leaders influencing the recommendations could impact (positively or negatively) the implementation timeline and general success of the recommendations.

**Appendix A: Implementation Solutions Matrix: Kentucky-Based Solutions**

| Recommendation | Suggested Stakeholders | Outcomes | Level of Complexity | Timeline |
|---|---|---|---|---|
| HB 561 "Certified Child Care Community Designation" | N/A | N/A | N/A | N/A |
| The Employee Child Care Assistance Partnership Program | LTADD,<br>Economic Development Organizations,<br>Industry Leaders impacted by workforce challenges | Working parent recruitment & retention,<br>Community Impact,<br>Increase in employee performance. | Low | Short<br>(1 year) |
| Child Care Assistance Program (CCAP) Subsidy for Child Care Employees | LTADD,<br>Local childcare facilities,<br>Local Workforce boards,<br>Regional childcare advocacy groups | Working parent recruitment & retention,<br>Increase in mothers returning to the workforce,<br>Access to affordable childcare. | Low | Short<br>(1 year) |
| The Early Childhood Development Scholarship | LTADD,<br>Local childcare facilities,<br>Local Workforce boards,<br>Regional childcare advocacy groups,<br>Local Universities and community colleges | Increased interest in early childhood education careers,<br>Increase in educational attainment. | Low | Short<br>(1 year) |

**Appendix B: Implementation Matrix, Employer Solutions**

| Recommendation | Suggested Stakeholders | Outcomes | Level of Complexity | Timeline |
|---|---|---|---|---|
| Implement Employee Assistance Programs | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents. | Low | Short (1 year) |
| Provide Flexible Scheduling | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism. | Low | Short (1 year) |
| Offer Childcare Subsidies | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, Childcare Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, reduction in employees leaving workforce. | Mid | Short (1 year) |
| Explore Nontraditional Solutions for Working Parents | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, Childcare Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, reduction in employees leaving workforce. | Mid | Mid (2-3 years) |
| On-Site/Near-Site Childcare Centers | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, Childcare Consultant, Local Childcare Facilities/Providers, LTADD, Economic Development Organizations | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, reduction in employees leaving workforce, increased collaboration between childcare facilities and regional employers. | High | Long (4-5 years) |
| Partner with Backup Care Providers | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, Childcare Consultant, Local Childcare Facilities/Providers | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, reduction in employees leaving workforce. | Mid | Short (2-3 years) |

| | | | | |
|---|---|---|---|---|
| Address Equitable Return to Work Strategies | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, DEI Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, increase in mothers/working parents returning to the workforce. | Low | Short (1 year) |
| Eliminate Bias in the Hiring Process | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, DEI Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, increase in mothers/working parents returning to the workforce. | Low | Short (1 year) |
| Offer "Returnships" or Professional Development Opportunities | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, DEI Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, increase in mothers/working parents returning to the workforce. | Low | Short (1 year) |
| Establish Equitable Pay Improvement Strategies | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, DEI Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, increase in mothers/working parents returning to the workforce. | Low | Short (1 year) |
| Establish Gender Diversity KPI Goals | Employers, Employees/Employee Resource Groups, HR/Talent Department, HR/Talent Consultant, DEI Consultant | Increased employee satisfaction, increased employer-specific solutions for working parents, reduction in absenteeism, increase in mothers/working parents returning to the workforce. | Low | Short (1 year) |

**Appendix C: Implementation Matrix, Childcare Provider Solutions**

| Recommendation | Suggested Stakeholders | Outcomes | Level of Complexity | Timeline |
|---|---|---|---|---|
| Address Compensation and Fiscal Stability | Childcare Facility Owners and Directors, State Childcare Support Organizations, Regional Childcare Advocacy groups, Small Business Development Center, Chamber of Commerce | Increased job satisfaction and quality, increase in budget allocations to employee compensation and professional development, increase cost management. | High | Mid (2-3 years) |
| Support Career Advancement Initiatives | Childcare Facility Owners and Directors, Childcare Employees, State Childcare Support Organizations, Regional Childcare Advocacy groups, Small Business Development Center, Chamber of Commerce | Increased job satisfaction and quality of employees and candidates, increase in childcare career pathway pipeline, increase in trained childcare professionals. | Low | Short (1 year) |
| Improve Staff Wellness and Job Satisfaction | Childcare Facility Owners and Directors, Childcare Employees, State Childcare Support Organizations, Regional Childcare Advocacy groups | Increased job satisfaction and quality of employees and candidates, increase in childcare career pathway pipeline, increase in trained childcare professionals. | Mid | Mid (2-3 years) |
| Consider Expanded Services Through Childcare Service Networks | Childcare Facility Owners and Directors, Childcare Employees, Regional Childcare Advocacy groups, Local Key Employers | Collaboration between childcare facilities and local employers, increase in childcare options for regional workforce. | Mid | Mid (2-3 years) |
| Explore Overnight/Multiple Shift Care Services | Childcare Facility Owners and Directors, Childcare Employees, Regional Childcare Advocacy groups, Local Key Employers | Expansion of services, increase in childcare options for regional workforce (especially second and third shift working parents). | High | Mid (2-3 years) |
| Utilize State and Federal Business and Community Childcare Grant & Tax Credit Initiatives | Childcare Facility Owners and Directors, State Childcare Support Organizations, Regional Childcare Advocacy groups, Local Employers, Chamber of Commerce, Kentucky Chamber of Commerce | Increase in budget allocations, increased job satisfaction, increase in trained childcare professionals. | Mid | Mid (2-3 years) |

**Appendix D: Implementation Matrix, LTADD**

| Recommendation | Suggested Stakeholders | Outcomes | Level of Complexity | Timeline |
|---|---|---|---|---|
| Support Early Childhood Career Apprenticeships | LTADD, Childcare Facility Owners and Directors, State Childcare Support Organizations, Regional Childcare Advocacy groups, Local Employers, Chamber of Commerce, Workforce Organizations, Economic Development Organizations | Increase in childcare career pathway pipeline, Increase in trained childcare professionals. | Low | Short (1 year) |
| Engage In Public Advocacy and Policy | LTADD, Childcare Facility Owners and Directors, State Childcare Support Organizations, Regional Childcare Advocacy groups, Local Employers, Chamber of Commerce, Local government, Workforce organizations, Economic Development Organizations | Increased collaboration between childcare facilities, key regional employers, local and state government officials. | Low | Short (1 year) |
| Recognize the Role Affordable Housing Plays in Childcare Solutions | LTADD, Regional Childcare Advocacy groups, Local Employers, Chamber of Commerce, Local government, Workforce Organizations, Economic Development Organizations | Increased support for working or work-willing parents, increased collaboration between childcare facilities, key regional employers, local and state government officials. | Low | Short (1 year) |
| Support Zoning Regulation Updates | LTADD, Childcare Facility Owners and Directors, State Childcare Support Organizations, Chamber of Commerce, Local government, Economic Development Organizations | Increased collaboration between childcare facilities, key regional employers, local and state government officials, opportunity for childcare facilities to expand. | Low | Short (1 year) |
| Support Child Care Business Incentive Grants & Initiatives | LTADD, Childcare Facility Owners and Directors, State Childcare Support Organizations, Regional Childcare Advocacy groups, Local Employers, Chamber of Commerce, Local government, | Increased collaboration between childcare facilities, key regional employers, local and state government officials, opportunity for childcare facilities to expand. | Low | Short (1 year) |

| | | | | |
|---|---|---|---|---|
| | Economic Development Organizations | | | |
| Act As a Regional Administrator | LTADD, State Childcare Support Organizations, Regional Childcare Advocacy groups, Chamber of Commerce, Local government, Economic Development Organizations | More efficient coordination of the ECAPP between local stakeholders and the state, and more efficient communication channels between local stakeholders and the state. | High | Mid (2-3 years) |