

# Research Memo

The Washington State Department of Children, Youth, and Families (DCYF) sought assistance from Western Washington University's Center for Economic and Business Research with modeling and analysis related to Early Childhood Education and Assistance Program (ECEAP) estimated costs.

The model presented is designed to ultimately meet the programmatic objectives and requirements by the agency and can be used to calculate different facility scenarios. The actual financial performance of a vendor can be compared using estimated standards of over/under performance using the model. The model currently includes Washington state's approximate average overhead costs for the child care industry.

## SOC Positions

**"Standard Occupational Classification (SOC) Positions"** contains ECEAP job positions, position descriptions, key credentials/education requirements if applicable, and the 2019 wages for each position, collected in the previously used ICF report.

SOC codes are a federal statistical standard used to classify workers into occupational definitions and categorize related groups of job positions. Because the ICF report was written in 2019, wages were updated in October 2022 to account for inflation by using SOC position titles and SOC position descriptions positions that were similar based on description and levels of education or training.

## Baseline Assumptions (aka Rate Model)

**"Baseline Assumptions"** contain the information and assumptions created from the Cost Study conducted by DCYF in 2019. Western Washington University (WWU) and DCYF updated the 2019 study with 2022 wages reported by the Employment Security Department, to generate the forecast. This worksheet includes the calculated proposed cost per child, today's ECEAP cost rate, and the funding gap between the two.

**"Program Structure"** includes an input for "Enrollment," which can be modified to calculate the required number of classrooms below to match enrollment numbers.

**"Personnel Assumptions,"** the SOC positions are referenced, with their corresponding Full Time Equivalent (FTE) and SOC-based wage. Labor costs are calculated using FTEs, with a single FTE equivalent to a 40-hour workweek, or 2,080 annual hours.



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**“Non-Personnel Assumptions”** includes the non-labor related costs of running an ECEAP facility. These include supplies and equipment costs, professional services such as bookkeeping or legal services, or other business expenses such as fees or licenses. There are also facilities and maintenance expenses, food and kitchen costs, travel costs, and an indirect rate used to cover additional overhead costs.

**“Revenue Assumptions”** includes the current ECEAP rate.

## Output

**“Output”** is the accounting/calculation sheet that generates the cost and revenue estimates.

**“Personnel Expenses”** include the costs (SOC wages) multiplied by FTE to create the total cost per staff member. The sheet also adds in additional expense related to staff training, coverage, sick leave, and paid-time-off. Other benefits are also calculated and added, including state and federal mandatory benefits, and a 24% allocation for health, dental, and retirement benefits.

**“Tax and Benefits”** include calculating taxes for the model, the federal tax level was assumed to be 20% applied to an assumed 5% net income. DCYF has used this assumed tax liability rate in other models as a reliable reference point. DCYF contracted providers are not expected to have significant depreciation associated with the services they provide and other expenses that other companies might be able to deduct on their federal taxes as this is not a capital-intensive industry outside of facility needs.

**“Non-Personnel Expenses”** calculate the costs taken from Baseline Assumptions for Non-Personnel Expenses and multiplies them by the number of program enrollment.

As supplied by previous DCYF models, payroll taxes and benefits costs maintain a rate of 24%. Additionally, the model assumes that DCYF contracted providers in Washington state will pay 1.5% of gross income for state business and occupation taxes.

**“Revenue”** calculates the estimated revenue for the ECEAP provider generated from the ECEAP rate multiplied by the enrollment number on the baseline assumptions tab. The Annual Surplus or Deficit is the final total of the Output, showing the balance between Revenue and Expenditure, where a surplus has positive income (i.e., net income), and a deficit has negative income (i.e., net loss).

## Staff Costs

In reclassifying ICF 2019 wages to 2022 Standard occupational classification (SOC) codes, WWU made the following assumptions.

- All staff are assumed to be W2 employees and not 1099 contractors. In general, wages were selected using the Washington state average wage for each position or SOC. Wage data and averages come from second and third quarter 2022 data reported by the Washington State Employment Security Department.
- In certain cases, such as for teachers, nurses, and administrative staff, wages were selected at a level lower than average Washington state wage to better align ECEAP/SOC job duties and education and training levels. For example, Washington state public school teacher positions

require a bachelor's degree and state certification, while ECEAP teachers do not have the same requirements, therefore impacting the assumed position within the teacher wage band.

Across all job positions, there was an average of a 70% increase in wages once positions were reclassified to 2022 data using the SOC codes to better match job duties and descriptions among federal categories.

**Director** wages have been estimated at an annual wage of \$85,800. This position falls under SOC code 11-9039 or "Education Administrators, Other."

**Assistant Director** wages are estimated at an annual wage of \$56,800, using the SOC code 11-9031 "Education and Childcare Administrators, Preschool and Daycare."

**Administrative Staff** fall under the SOC code 43-1011 or "First-Line Supervisors of Office and Administrative Support Workers" who coordinate clerical and administrative support work. Annual wage for this position is estimated at \$51,300.

**Lead Teacher** is connected to SOC 25-2012 or "Kindergarten Teachers Except Special Education" and has an estimated annual wage of \$50,500.

**Assistant Teacher** is connected to SOC 25-9045 or "Teaching Assistants, Except Postsecondary" and has an estimated annual wage of \$42,100.

**Other Classroom Staff** also fall under SOC 25-9045 or "Teaching Assistants, Except Postsecondary" with an estimated annual wage of \$42,100.

**Support Staff** like custodians, drivers, aides, and other ECEAP staff connect to SOC 37-2011 or "Janitors and Cleaners" and have an estimated annual wage of \$38,100.

**Family Support Staff and Health Advocate** fall under the 21-1019 SOC for "Counselor" and have an estimated annual wage of \$58,700.

**Infant and Early Childhood Mental Health Consultant** connects to SOC 21-1100 or "Community and Social Service Specialists" with an estimated annual wage of \$71,000.

**Coach** falls under SOC 21-1101 or "Community and Social Service Specialists, Other" with an estimated annual wage of \$60,200.

**Consultant – Health** is a registered nurse position, connecting to SOC 22-1141 or "Registered Nurse" and has an estimated annual wage of \$74,000.

**Consultant – Nutrition** connects to the Dietician and Nutritionist SOC 29-1030 and has an estimated annual wage of \$52,000.