

# **Analysis of Child Care Rates in Oregon**

**A Report to Adult and Family Services Division,  
Oregon Department of Human Resources**

**March 1990**

**ARTHUR EMLLEN & ASSOCIATES, INC.**



## Table of Contents

Introduction.	1
Sample and sampling.	1
The 75th percentile.	2
Method of data analysis.	3
How do providers report their rates?	3
Full-time versus part-time rates.	4
Number of providers vs. number of child care "slots"	4
Geographic differences in rates.	5
Are provider-reported rates (supply data) validated by employee-reported expenditures (demand data)?	6
Next steps.	7
State-wide rate tables and proposed regional rate tables.	Following page 7

## Analysis of Child Care Rates in Oregon

### Introduction

This report to Adult and Family Services by Arthur Emlen & Associates, Inc. is an analysis of the rates that Oregon child care providers report charging for the care of infants, toddlers, preschoolers, and school-age children. The report consists of:

1) a recommended rate schedule for family day care and center care in Oregon based on analyses of the geographic variation in rates for infants, toddlers, preschoolers, and school-age children,

2) a discussion of the results of the analysis and of the methodological issues involved, and

3) a discussion of the results of an analysis of child care expenditures from a sample of Oregon employees (demand data) for comparison with and validation of the child care rates reported by providers (supply data).

### Sample and sampling.

In December 1989, the Adult and Family Services Division (AFS) of the Oregon Department of Human Resources distributed its rate survey to a list of 11,611 providers of child care in family day care homes, group homes, licensed centers, and in-home situations. An additional 20,000 questionnaires were distributed in an indirect effort to reach providers serving AFS clients, bringing the total estimated unduplicated count of providers receiving the questionnaire to between 15,000 to 17,000.

The survey asked providers to state the amount they charge for the full-time and part-time care of infants, toddlers, preschoolers, and school-aged children. This report is based on analysis of the rate data received from

1707	family day care homes
392	licensed child care centers
57	group homes
214	in-home providers
<hr style="width: 50px; margin-left: 0;"/>	
2370	providers
(2511)	(returned the questionnaire)

The questionnaire was sent to five lists: centers regulated by the Department of Education; centers licensed by the Children's Services Division (CSD); lists of centers, family day care homes and

other providers known to Resource and Referral Programs; family day care homes registered with CSD; and clients of the Adult and Family Services Division. These lists overlapped.

The survey was distributed in all 36 Oregon Counties; 36 counties and 305 zipcodes were represented by those responding.

The overall return rate was 22 percent of those on the unknown lists of providers, a 20 percent sample of useable rates, and approximately 15 percent of total estimated possible number of surveyed providers.

With the data provided, there was no way to assess definitively the representativeness of the rates reported. The sample of rates may be biased in some unknown way, or the sample may be reasonably adequate as a representation of Oregon rates. A number of analyses were undertaken to examine whether the reported rates were critically affected by sampling bias. For example, in response to concerns as to whether family day care providers used by or known to Resource and Referral programs, and hence perhaps in general of known quality, were well represented, an effort was made to compare rates reported by different sampling sources. The rates for the "R & R" sampling frame were very close to the overall family day care rates from all sources, and the hourly rates at the 75th percentile from the R & R sample were identical with the hourly rates at the 75th percentile for Oregon as a whole. Although this is of some comfort, the issue of to what extent the quality of child care is correlated with the rates charged remains beyond the scope of this report.

### **The 75th Percentile.**

Under Federal/State policy set by the Family Support Act, child care will be subsidized at the 75th percentile of current rates. What does that mean? It means that out of a rank order, from highest to lowest, of all the fees being charged by providers in a designated community, AFS will pay the rate that falls above 75 percent of all the fees being charged. That does not mean paying 75 percent of the average going rate, but paying the full amount of a relatively high rate. The 50th percentile is the median, middle, or average rate. The 75th percentile is moderately well above average. By paying at the 75th percentile, the government is paying less than the very highest rates in town, but more than three-quarters of them. A percentile is not affected by how extremely high or low any one rate may be in the community.

Subsidized anywhere between the 50th and 75th percentiles of going rates, AFS clients should be in a competitive position to find child care in the community. Our studies of what employees pay for child care show that there is little variation associated with increments in family income until employees are making more than \$50,000 or \$60,000 in household or family income.

#### **Method of data analysis.**

In general, the procedures followed in determining the rates for subsidizing child care in Oregon were fairly robustly resistant to extreme values or gaps between one rate and another, since the method consisted of identifying that reported child care rate below which 75 percent of all the rates fell. Analyses were done first for the state as a whole and for five regions of the state that were thought originally to have similar rates. Additional analyses were done for each county and for categories of cities of different population size including those under 15,000 and those with populations of 15,000 to 40,000, as well as for a great many individual cities. It was obvious that a strong urban-rural difference prevailed, but with enough exceptions even within counties to require analyses by zipcodes when sample sizes permitted. The aim was to group similar rates to the extent feasible.

#### **How do providers report their rates?**

Most providers preferred to report their rate charges either per hour, per day, per week, or per month, but not in all ways. There was no valid way to convert all modes of rate reporting to any one mode by simple multiplication or division, because some providers discounted rates for longer periods of time while others did not. This robbed the analysis of sample size, complicated the analysis, and required relying primarily on hourly rates for comparative analysis of regional rates, since hourly rates tended to be the preferred mode of reporting and because they required making no assumptions about the number of hours of care involved in a day, week, or month. Because there were differences in the reported rates for full and part-time care, this suggested that the reported hourly rate for full-time care was a reasonable estimate of full-time rates.

Nevertheless, all of the 75th percentile rates are reported for each age-category of child and each time-period mode of rate

reporting. The sample sizes for the reported rates are as follows:

	Infants	Toddlers	PreSchool	SchoolAge
Family Day Care n=1707				
per hour	928	1103	1102	1002
per day	301	323	362	237
per week	204	219	237	145
per month	160	172	196	138
Center Care n=392				
per hour	85	96	153	142
per day	41	58	93	59
per week	41	50	74	49
per month	69	96	163	108

#### Full-time versus part-time rates.

Providers were asked to state their rates for both full and part-time care. A comparison of hourly rates for each kind of provider showed that some providers discount their full-time care or, alternatively, charge extra for part-time care. However, the practice is not consistently followed by providers nor perhaps reliably reported. Family day care providers in the urban areas charged \$0.25 more per hour for part-time care of toddlers, preschoolers, and school-age children, but not of infants, while Oregon centers that reported both full and part-time hourly rates actually charged less for part-time infants and toddlers, but more for schoolagers and the same for preschoolers.

#### Number of providers versus number of child care "slots".

No item on the questionnaire asked about the capacity or usual number of children cared for in family day care homes. Capacity figures were available for centers, however. Child care center capacity ranged in size up to 270 children, with 20 percent having 100 or more children and the middle 50 percent having capacities of 28 to 88 children.

One issue raised in Federal/State discussions concerns whether the center rate subsidies should represent centers or center "slots". The former is a better measure of the rates charged by Oregon's centers, but the latter (capacity) is a better measure of the rates paid by or for Oregon's AFS clients.

A practical advantage to calculating the 75th percentiles on the basis of weighting for capacity is that there were so few centers in a

great many counties that the samples of rate data by center were too small to calculate percentile rates and make regional comparisons. On the other hand, only half of the centers reported what their capacity was. Therefore, analyses were done both ways to see whether they produced similar classifications of regional rates. The capacity-based rates were somewhat higher, because of a weak but statistically significant correlation ( $r = .23, .20, .17, .18$ ) for infant, toddler, pre-school, and school-age rates respectively) between center size (or capacity) and the rate charged. The center-based and slot-based rates appeared to provide a reasonably consistent picture of rates, and a decision was made to go with the capacity-based rates, because they facilitated the design of a rate structure and because, from a client point of view, the number of center slots gives a closer approximation of the rates that actually would be paid.

### Geographic differences in rates.

The most critical questions in the analysis were whether rates for infants, toddlers, pre-schoolers, and school-age children follow a pattern, and if so, how many regional patterned sets of rates are required for the state of Oregon. If rates vary widely from county to county or city to city, then one rate subsidy for the whole state will seldom fit the going rates. To address these issues, four age rates were analyzed for Oregon as a whole, for each county, for most cities with a population of 15,000 or larger, and for selected zipcodes within counties having urban centers. Since most family day care providers report charging in multiples of \$0.25, in-between rates were few in the 75th percentile calculations needed for the rate structure and minor differences were ignored.

In general, rates increased with size of population, but not consistently for all counties or cities. Rates could not be categorized only by county, because of wide city variations within some counties, such as Eugene in Lane County, Corvallis in Benton County, and Beaverton in Washington County. The proposed rate structure uses either counties or zipcodes to designate which geographic areas belong together.

For family day care, three groups of rates created the best fit, made possible by accommodating minor (\$0.25) rate adjustments for an age category in a handful of counties or cities in order to fit into their groups. For center care, two groups provided the best fit. The groupings are based on similarity of rates, not on geographic propinquity. For example, Ashland and Portland fall into the same group for the family day care rates, because they are closely comparable.

In effect, the proposed rate structure provides a remarkably close approximation of the going rates being charged in the communities of Oregon. However, it is important for the public to understand that there is no perfect solution to the rate problem, only a best solution based on the available data. In the long run, the rate structure could be improved by a better return-rate from child care providers.

It is possible that contiguous zipcodes will show anomalous rate discrepancies because a county percentile had to be used due to insufficient sample within a zipcode. In such cases, AFS may need to make some adjustments here and there based on judgment and good sense.

It should be recognized also that the zipcodes listed in this report with each grouping of proposed rates include only those zipcodes for which rate data were available for analysis by zip. There may be other zipcodes left out in any given county, and an assumption must be made that they belong to the most reasonable, immediately contiguous area.

**Are provider-reported rates (Supply Data) validated by employee-reported expenditures (Demand Data)?**

Do data from employees on what they say they pay for child care confirm the data from providers on what they say they charge for child care? Do these data from the demand side confirm the regional differences in rates as reported by the supply side?

Arthur Emlen & Associates, Inc., in cooperation with Portland State University's Regional Research Institute for Human Services, maintains a database of survey data obtained from large numbers of employees from Oregon and many other states. From a widely distributed sample of Oregon employees surveyed in 1989, it was possible to calculate the 75th percentiles of child care expenses that employees reported paying for family day care and center care for children ages 0-5 and 6-11, for comparison with the rates providers reported charging in the proposed geographic groupings for the rates, which were three groups for family day care and two for center care. In order to make valid comparisons that were not confounded by family size, comparisons were made for employees with only one child age 0-5 or 6-11. Samples were small (n=99 and 61 for Group A, ages 0-5, and insufficient for family day care's Group B, and there is no reason to expect that any particular sample of employee expenditure data should correspond exactly or even closely to the provider rate data.



Nevertheless, the correspondence was actually reasonably close, and the rate differences between the geographic groups did find a parallel in the demand data, validating the approximate levels reported by providers. The 75th percentiles of provider rates actually ran \$25 to \$50 per month higher than the 75th percentiles of employee-reported expenditures, except for school-age center care in rural Oregon. In part this difference could possibly be accounted for by the fact that the employee data were collected earlier, largely in May 1989, while the providers reported their rates in December 1989, at a time when the minimum wage was being increased. Also, providers probably do not always receive their stated rates.

Comparisons of the demand and supply data also roughly confirmed the geographic differences in rates. For children ages 0-5, rural center and family day care the supply and demand data both averaged approximately 30 percent lower than the urban rates.

Other analyses were also of interest. When AFS clients enter the labor force, are they at a disadvantage in purchasing child care because employees with higher family incomes pay more than AFS employees can? Probably not. AFS clients are probably quite competitive, because the amount that Oregon employees pay for child care shows little relation to their ability to pay until household incomes of \$50,000 to \$60,000 are reached. The 75th percentile, or even the 50th percentile (median), of provider rates falls well within the distribution of expenditures that our sample of employees reported paying.

Nor is it the case that increasing amounts of child care expenditures result in finding child care that employees are more likely to be satisfied with. Actually, those dissatisfied with their arrangements are the ones who tend to pay more for child care, probably because their standards are higher.

### Next steps.

Basing child care subsidies on a market survey of existing rates is surely better than fixing rates arbitrarily. However, the approach depends on having sample sizes adequate to conduct analyses at the zipcode level. There are bound to be many questions that will arise in opening the method and rates to public review. These questions will lead to improvement of the procedures. We are pleased to join AFS in this process and in seeking the widest public understanding of the new policy and how it works.

## Oregon Child Care Rates at the 75th Percentile:

### Family Day Care:

#### Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Oregon Statewide.

N= 1707 family day care homes

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	1.75	1.50	1.50	1.50
Per day	15	15	14	12
Per week	80	75	75	63
Per month	328	300	280	250

See Appendix for sample sizes and distribution of rates charged.

## Oregon Child Care Rates at the 75th Percentile:

### Child Care Centers :

#### Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Oregon Statewide.

N= 392 centers

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	1.98	1.89	1.75	1.65
Per day	23	21	15	14
Per week	107	106	72	69
Per month	450	407	296	230

See Appendix for sample sizes and distribution of rates charged.

## Oregon Child Care Rates at the 75th Percentile:

### Group Homes:

#### Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Oregon Statewide.

N= 57 group homes

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	1.80	1.75	1.50	1.50
Per day	17	15	15	13
Per week	93	92	75	63
Per month	356	338	270	230

See Appendix for sample sizes and distribution of rates charged.

## Oregon Child Care Rates at the 75th Percentile:

### In-Home Care:

#### Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Oregon Statewide.

N= 214 in-home care providers

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	1.75	1.50	1.50	1.50
Per day	16	13	12	12
Per week	88	60	60	60
Per month	360	300	240	240

See Appendix for sample sizes and distribution of rates charged.

## Oregon Child Care Rates at the 75th Percentile:

### Family Day Care:

#### Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Group A  
N= 685 family day care homes

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	2.00	1.75	1.50	1.50
Per day	17.50	15	15	13
Per week	80	75	75	75
Per month	350	304	300	250

See Appendix for sample sizes and distribution of rates charged.

## Oregon Child Care Rates at the 75th Percentile:

### Family Day Care:

#### Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Group B

N= 102 family day care homes

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	1.75	1.50	1.50	1.50
Per day	15	15	12.25	12.75
Per week	75	75	75	67.50
Per month	300	325	300	270

See Appendix for sample sizes and distribution of rates charged.

## Oregon Child Care Rates at the 75th Percentile:

### Family Day Care:

#### Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Group C

N= 883 family day care homes

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	1.50	1.50	1.25	1.25
Per day	13	12	12	10
Per week	70	60	55	55
Per month	300	270	240	235

See Appendix for sample sizes and distribution of rates charged.



## Classification of Family Day Care Hourly Full-Time Rates

	Infant	Toddler	Pre-Schl	Schl-Age
Group A	2.00	1.75	1.50	1.50
Group B	1.75	1.50	1.50	1.50
Group C	1.50	1.50	1.25	1.25

### Composition of Groups:

Group A: Metropolitan Portland, Ashland, Eugene, and Corvallis (Zip codes: 972xx, 97005, 006, 007, 009, 015, 027, 030, 034, 035, 045, 060, 062, 068, 070; 97520; 97401-05; 97330,333.)

Group B: Clatsop, Polk, and Washington Counties.

Group C: All other county areas, including rural Oregon, small towns, and all cities and counties with similar rates. (See 6 rate exceptions for some age groups in some areas.)

### Adjustments to Group C:

- Salem (97300,301,302,303\*,305,306,307,308,309,310) : \* 304 is in Polk Co.  
+ .25 for pre-schoolers
- Springfield (97477,478,482):  
+ .25 for pre-schoolers  
+ .25 for school-age
- Jackson County:  
+ .25 for infants
- Grants Pass (97526):  
+ .25 for toddlers
- La Grande (97850):  
+ .25 for infants
- Union County:  
+ .25 for infants

Oregon Child Care Rates at the 75th Percentile:

Child Care Centers, with Rates Weighted by Capacity of Center:

Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Portland Metropolitan Area.

N= 4929 "slots" in centers

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	3.50	5.00	3.00	3.00
Per day	25	25	19	16
Per week	108	108	77	70
Per month	560	528	350	270

See Appendix for sample sizes and distribution of rates charged.

Sample sizes for monthly rates reported for each age-group:

1203      1699      2819      1666

Oregon Child Care Rates at the 75th Percentile:

Child Care Centers, with Rates Weighted by Capacity of Center:

Full-Time Rates by Age of Child and Unit of Fee Reported

Population: Oregon except for Portland Metropolitan Area.

N= 5938 "slots" in centers

Fee Unit	Age Category			
	Infant	Toddler	Pre-Schl	Schl-Age
Per hour	2.00	1.70	1.65	1.50
Per day	18	19	14	12
Per week	98	98	71	68
Per month	345	370	259	164

See Appendix for sample sizes and distribution of rates charged.

Sample sizes for monthly rates reported for each age-group:

1157	2074	3281	1835
------	------	------	------