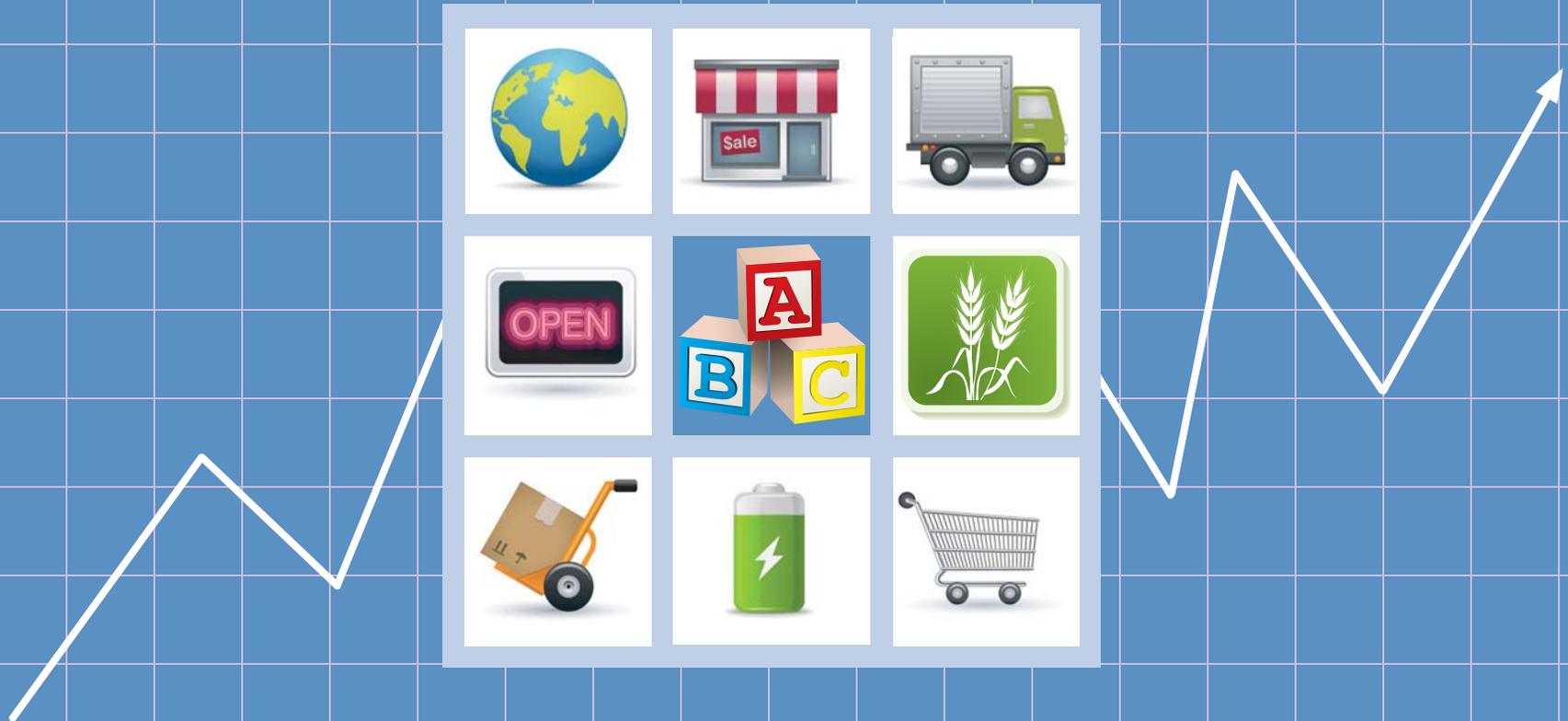


**What Oregon industry supports 181,000 Oregon jobs,
\$8 billion in income, and \$25 billion in sales annually?**



**The Economic Impact of Oregon's Child Care Industry
2010 Edition**

Contents

Statistical Highlights	2
Introduction	3
Child Care: An Overview	4
The Functions of Child Care	4
The Four Pillars of Child Care	4
The Industry’s Perennial Challenges	5
The Family’s-eye View	6
Who Pays for Child Care?	6
Child Care: So Oregon Can Work	7
Women in the Oregon Workforce	7
Who Relies on Paid Child Care?	7
Paid Child Care Arrangements Vary	8
Child Care: An Income-Generating, Job-Creating Industry	9
Impact at a Glance	9
Child Care Generates More Than \$1 Billion in Gross Revenues	10
Child Care Employs Tens of Thousands	11
The Child Care Industry and Related Household Spending	12
Parents Using Child Care Span All Sectors of the Economy and Earn Billions in Wages	13
The Full Picture: Linkages to Working Parents Who Use Child Care	14
State Support for Child Care	15
Child Care Draws Millions in Expenditures from Out of State, Employing Thousands	15
Recent State Legislation Impacting Federal Dollars	17
Child Care: Return on Investment	18
The High/Scope Perry Preschool Study	18
The Carolina Abecedarian Project Study	19
Advancing the Industry	20
Forward Movement on Affordability: ERDC	20
Forward Movement on Quality: EQUIP	20
Notes	23
Acknowledgments	24

Reaching and teaching children early in life pays dividends far into the future, for our state and the nation.
—Senator Ron Wyden



Statistical Highlights

Here is a preview of a few of the important statistics you will find in this revised, updated report on the economic impact of Oregon's child care industry. Where both are available, updated figures from 2008 are contrasted with 2001 figures from the first edition of this report, published in 2005.

The child care industry in Oregon:

- Generates **\$367 million in income** (up from \$167 million in 2001)
- Generates **\$1.2 billion in gross revenues** (up from \$639 million), on a par with Oregon's signature greenhouse and floriculture operations
- Comprises **10,946 child care businesses** that employ people, pay wages, and make purchases (up from 7,900)

- Ranks 17th in employment out of the state's 410 industries, employing **29,626 people** (up from 14,420)—more than telecommunications, lumber and paper mills, computer-related services, and wineries combined
- Keeps more than **98,000 parents** (up from 90,000) on the job, earning **\$4.3 billion annually**
- Is linked to an estimated additional 83,000 jobs, which are generated by the jobs these 98,000 working parents hold, as well as by the wages they earn. The combined salaries and wages of all these workers amount to more than **\$8 billion** and their work generates nearly **\$25 billion in gross revenues**. (See page 14, The Full Picture, for details.)
- Allows an estimated **8% of Oregon's economy** to function productively

The child care industry is an indispensable component of Oregon's economy that helps support virtually every other sector.



Introduction

Welcome to the 2010 report on the economic impact of Oregon's child care industry. The economic impact analysis of child care was completed by Malory Rahe, Oregon State University Extension Economist, with assistance from Roberta Barsotti-Weber, Faculty Research Associate, Family Policy Program, OSU and member of the Oregon Child Care Research Partnership, and Bruce Sorte, OSU Extension Economist.

Nurturing and educating children serves multiple purposes for society and has far-reaching economic impacts, especially in the development of the human capital needed to propel the economy forward generation after generation. This report primarily focuses on the direct, immediate impact of the child care industry on jobs and production in Oregon's overall economy. The impact is profound. It is documented here to illuminate policy discussions surrounding child care funding structures and the professionalism of the industry.

The first edition of this report was published in 2005. Much of it drew on 2001 data, analyzed by Oregon State University researchers using IMPLAN input-output modeling software. In this update, we revisit many of the quantitative measures contained in the previous report, this time using 2008 data and an updated version of IMPLAN. We also offer new measurements

derived from this analysis, including expanded data on the impact of federal child care dollars on the state's economy.

The 2005 report contained figures from several studies in addition to OSU's IMPLAN analysis. Where such research has been updated, you will find new figures. Where there is no new information but we believe the research is still meaningful today, we have reprinted it as originally published.

Among the things you will discover in this report are the number of Oregon parents who rely on child care in order to work and what they are able to earn in wages and generate in revenue as a result. You will find information on the industry's purchasing power, the jobs it supports in other industries, and what working parents benefiting from child care are able to produce for the economy. And you will find return-on-investment data gleaned from long-term landmark studies conducted in other areas of the country documenting the lasting effects of high-quality early child care and education.

Finally, we will take a look at some of the progress the industry has made during the years since the first report, offering brief summaries of important steps recently taken to improve affordability and quality of care for Oregon's children and families.



The Definition of Child Care Used in This Report

Child care is a term used to describe the care and education services parents select for their children. A more complete description is *childhood care and education*, and we use the term child care for simplicity.

Parents and the general public use a variety of terms such as preschool, Head Start, day care, and babysitter. In each case, child care describes care and education services delivered, in centers or homes, by adults who may or may not be related to the child.

Child Care: An Overview

When you think of major Oregon industries, you probably don't think of child care first. Or second, or even third. You might think of the lumber and paper mills that dot the state, the expanding telecommunications business, computer-related services, or the wineries that have gained national attention. You may be surprised to learn that child care ranks seventeenth in employment among more than four hundred industries, employing more people than all of the above industries combined.

Despite its size, child care sometimes suffers from invisibility. Though the industry is often overlooked, it is an indispensable component of Oregon's economy that helps support virtually every other sector.

This report examines the immediate economic impact of the child care industry in depth. But before we delve into the numbers, let's briefly explore what this industry does, how it works at its healthiest, and what its challenges are.

The Functions of Child Care

The industry serves three functions:

1 Keeps children safe, learning, and happy

- 2** Affords parents the opportunity to work and support their families
- 3** Contributes to the health of the greater economy through its own operations and by sustaining jobs and revenues in other industries

Each of these functions has far-reaching economic impacts and all are addressed in this report.

The Four Pillars of Child Care

There are four elements that make up a healthy child care system:

- Care is **safe**. The physical environment is free of hazards, and the people with whom children come into contact are trustworthy.
- Care is **affordable**. Parents can fit their child care bills into their monthly budgets.
- Care is **accessible**. Parents with infants or toddlers, children with special needs, or jobs that require them to work odd hours can find care.
- Care is of **high quality**. Caregivers and teachers have a thorough understanding of the stages of child development and of

children's needs at each stage. They are willing and able to engage children in ways that foster learning and social development, enabling them to be ready to enter school.

High-Quality Child Care Defined

The term *quality child care* describes care that researchers have found is associated with children's positive development of language and cognitive functioning, social skills, and emotional well-being. Positive development depends on a warm, nurturing caregiver-child relationship, a rich environment, and appropriate activities. These quality factors are highly correlated with "structural characteristics" that can be efficiently measured: group size, adult-to-child ratio, provider's education and training, provider's compensation, turnover and stability of teachers and staff, accreditation, and licensing complaints.¹

Outcomes of High-Quality Care

Researchers have found that high-quality care is associated with children's positive development of language and cognitive functioning, social skills, and emotional well-being.

The Industry's Perennial Challenges

It requires strategic planning, policy work, and determination to make improvements in safety, affordability, accessibility, and quality. Such work has been ongoing in the state for decades, advanced by a tightly coordinated system of partner agencies that has accomplished tremendous gains over the years. Unfortunately, the market forces they address in their efforts are persistent challenges for the field:

- **Child care workers are underpaid.** In Oregon in 2009, average hourly wages for teachers in regulated child care and education facilities ranged from \$9.00 to \$12.50.²
- **Child care workers often lack education, which adversely affects quality.** And since the profession does not pay well, it is always a challenge to incent workers to improve their skills. Only 34% of regulated child care and education centers have at least one teacher with a bachelor's degree in early childhood education or a related field, and only 3% of centers have been nationally accredited.³
- **There are not enough available child care "slots."** "Slots" is a term used to describe the number of children child care providers have the capacity to serve. Oregon's supply of child care is just 18 slots per 100 children un-

der age 13. This falls well short of the state's target of 25 slots per 100 children.⁴

The shortage of high-quality child care not only affects preschoolers, but also puts older children at risk. In most families, parents' schedules and children's school schedules do not mesh. This is truer than ever because today's parents are working longer hours. Working mothers and fathers typically arrive home hours after their children finish school.

- **Some types of care are especially hard to find.** Infants, toddlers, and children with special needs are labor intensive to care for, and slots for these children are limited.

How Much Does Child Care Cost?

The cost of child care varies depending on the type of care, the age of the child, and the geographical area. Prices generally fall as children's ages increase because programs are able to care for children in larger groups. Child care centers and large family child care homes generally charge higher prices than family child care providers. The median monthly price for an infant cared for full time in a center in an urban area is \$896 per month. Care of a school-age child in a family care home in a rural area costs \$165.⁵

It can also be difficult—or impossible—for parents working odd hours to find care. And a fifth of all employed people in the U.S. work nonstandard hours: evenings, nights, weekends, rotating schedules, or highly variable hours.⁶

Many local Oregon communities engaged in planning report a pressing need for infant and toddler care, care for children with special needs, and care available to parents who work night shifts and odd hours.⁷

- **Child care is not affordable.** Oregon has an Affordability Benchmark of 10%, meaning that child care should cost less than 10% of family income. In 2008, 31% of families had child care expenses of 10% or more of their budgets. This is down from 39% cited in the 2005 report. However, the drop is deceptive. It results from a sharp decline in the use of paid care by families earning below median income. While the 31% figure means that a larger percentage of those paying for care can afford it than was the case in 2005, it masks the fact that lower-income families cannot afford paid child care at all.⁸

Low-income families spend more than 25% of their household incomes on child care. High-income families spend only 7%.⁹

The Family's-eye View

If your family has ever had to rely on child care so adults can work, you might not have thought of child care as an industry, but you probably recognized some or all of the challenges just described—because you had to take a crash course in child care. You had to learn what it cost; who provided it; and whether the child care centers or family care homes in your community could accommodate your child, on your schedule, at a rate you could afford to pay. You wondered about the safety of the facilities in your neighborhood and how well-trained the staff was—or wasn't.

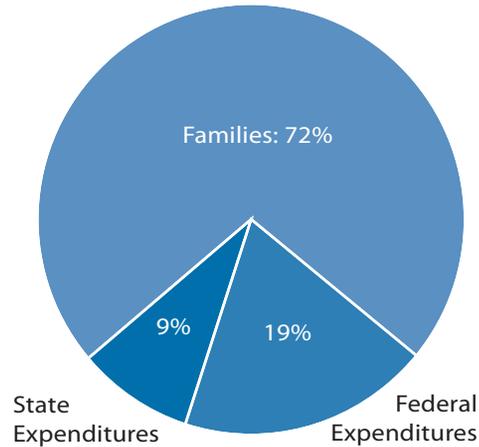
The main purpose of this report is to offer analysis of the industry as it fits into the overall Oregon economy—a macro view. Leaders in the field, however, always keep both the large and small pictures in mind: the health of the industry as a whole and the immediate experience of the consumers of child care—children and their families.

Who Pays for Child Care?

As Figure 1 shows, Oregon families themselves shoulder nearly three-quarters of the cost of child care.

Federal spending accounts for nearly 20%. For further information on the federal portion of expenditures and its effects on Oregon's economy, please see Figures 13 and 14 on page 16.

Figure 1: Who Pays for Child Care?



Total Child Care Expenditures \$1,287,832,659

State and Federal Government Detail:

Tax Credits	\$73,766,667
Programs	\$294,556,402
Total State and Federal	\$368,323,069

Source: Child Care Division, Employment Department

For a summary of the major state programs that also play an important role in contributing to the industry's ability to provide services, see Figure 12 on page 15.



All of society benefits from quality child care, but parents still bear the majority of the costs. By recognizing the importance of child care as part of economic recovery, we can now push to have child care included as a priority investment in future infrastructure and economic development programs. Our economy depends on it.

Mildred E. Warner, Ph.D., Professor, Department of City and Regional Planning, Cornell University.

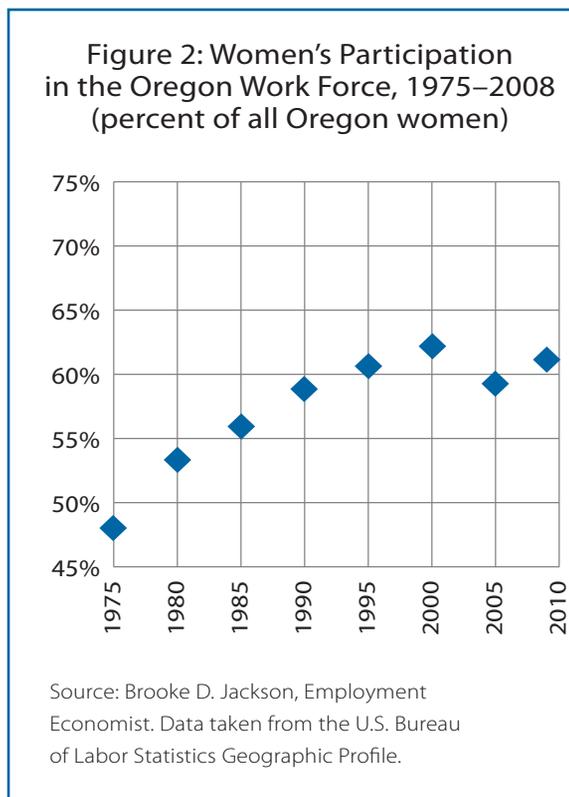
Child Care: So Oregon Can Work

The model of a two-parent household in which one breadwinner earns income and one homemaker looks after the kids no longer prevails. In Oregon, 47% of families are headed by dual wage earners or single parents.¹⁰ Thus the availability of high-quality, affordable child care has become a critical need, a service without which a great number of parents cannot work to support their families.

In many ways, child care is like transportation and housing. Without it, employees with children experience barriers to working, and their employers and the economy as a whole suffer.

Women in the Oregon Workforce

The trend away from a single breadwinner per two-parent family can be seen in Oregon women's participation in the workforce. As Figure 2 shows, the percentage of Oregon women working increased from 48% in 1975 to as much as 62% in 2000. While there have been slight fluctuations, women's employment has hovered in the 60% range for nearly twenty years. This tracks closely with the national average.



The model of a two-parent household in which one breadwinner earns income and one homemaker looks after the kids no longer prevails.

Who Relies on Paid Child Care?

- 98,103 Oregon families rely on paid care in order to be able to work.¹¹
- There are 205,192 Oregon children in paid child care settings—33% of all children under 13.¹²
- 33% of all Oregon children under age 5 are in paid care.¹³
- Although more than a third of children birth through age 9 are in paid care, less than a quarter of children ages 10 to 12 are in paid care.¹⁴
- 84% of all families using paid child care have at least one parent who is employed.¹⁵
- Only 31% of families earning less than \$27,500 use paid care, whereas 65% of those earning more than \$80,800 do so.¹⁶
- Almost half of Oregon families with children under age 13 use paid care, but some families are much more likely than others to do so: Almost two thirds (66%) of families headed by a single parent living without another adult in the household use paid care.

Almost as many families with two employed parents (61%) use paid care.¹⁷

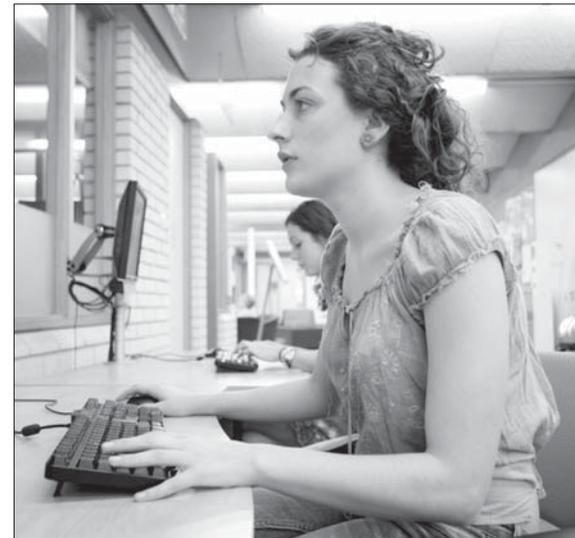
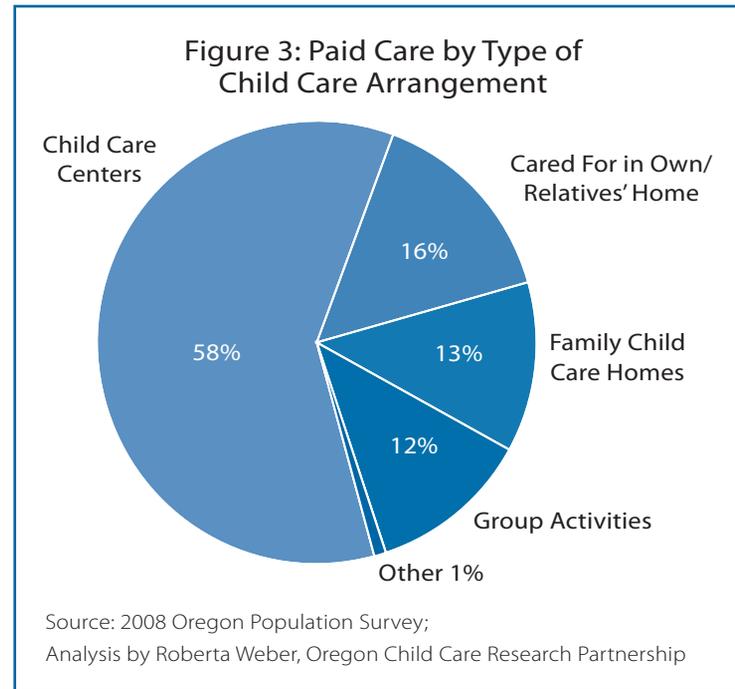
Paid Child Care Arrangements Vary

Most working parents seek care and education of their children from a system of nonprofit and for-profit providers. This system consists of a range of services: formal full-day and part-day child care and early education programs, preschools, family child care homes, after-school programs, child care centers, and care provided in the child's own home.

Figure 3 shows a breakdown of the types of care Oregon children receive. By far, most takes place in child care centers.

Both child care centers and family child care homes are regulated by the Child Care Division of the Oregon Employment Department. The Department of Human Services serves other home-based care—known as Family, Friend, and Neighbor providers—if the provider receives payment from the child care subsidy program.

Without child care, employees with children experience barriers to working, and their employers and the economy as a whole suffer.



Child Care: An Income-Generating, Job-Creating Industry

Estimating the Effects of the Child Care Industry

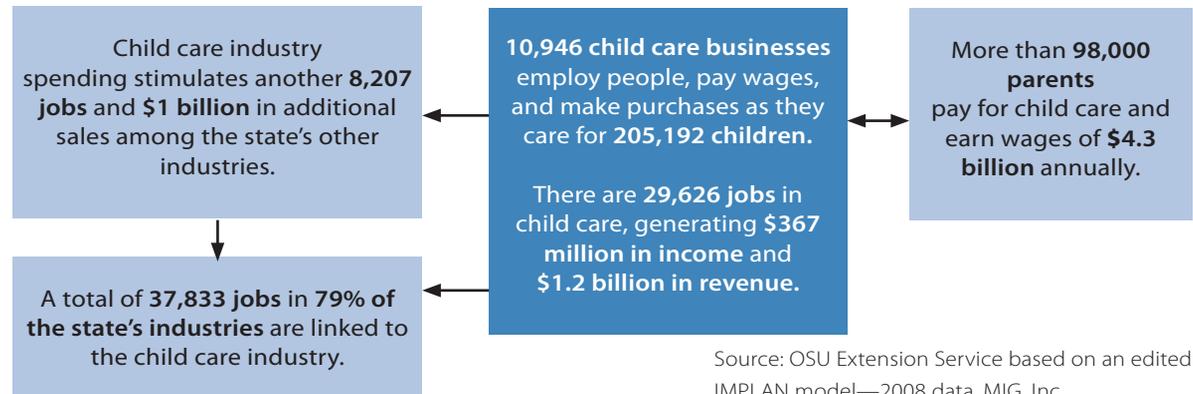
Input-output modeling is a widely used method for measuring the contributions of an industry. This makes it possible to follow the “footprint” of a given industry—who and what the industry touches within the economy.

In this way, we can estimate the child care industry’s immediate contributions to the economy, expressed as **gross revenue** from fees parents pay for services as well as investments from public and private sources, **employment** (full and part time) within the industry, and **income** (wages and earnings) of employees and proprietors of child care businesses.

We can also calculate the effects of child care providers’ purchases of goods and services. **Backward linkages** measure the strength of these purchases as sales, jobs, and income in the industries where spending occurs.

Forward linkages of the child care industry are the sales of child care services to parents and the additional income that parents are able to earn by having child care available.

Figure 4: The Economic Impact of the State’s Child Care Industry in 2008



Source: OSU Extension Service based on an edited IMPLAN model—2008 data, MIG, Inc.

Impact at a Glance

Child care is a viable industry in its own right, producing thousands of jobs and millions in revenue. In addition to these immediate benefits, the child care industry has linkages to the rest of the economy that support other industries and stimulate even more economic activity.

Figure 4 offers a summary of economic activity the child care industry generates. Here are some of the findings from our analysis of 2008 numbers:

- By providing services to families, the child care industry generates **\$1.2 billion** in

revenue, on a par with Oregon’s signature greenhouse and floriculture operations.

- Child care industry spending accounts for nearly another **\$1 billion in revenue to other industries in the state**.
- There are **29,626 jobs** in child care, and child care spending stimulates another **8,207 jobs**, for a total child care–related figure of **37,833 Oregon jobs**.
- Parents utilizing paid child care earn wages of **\$4.3 billion per year**.

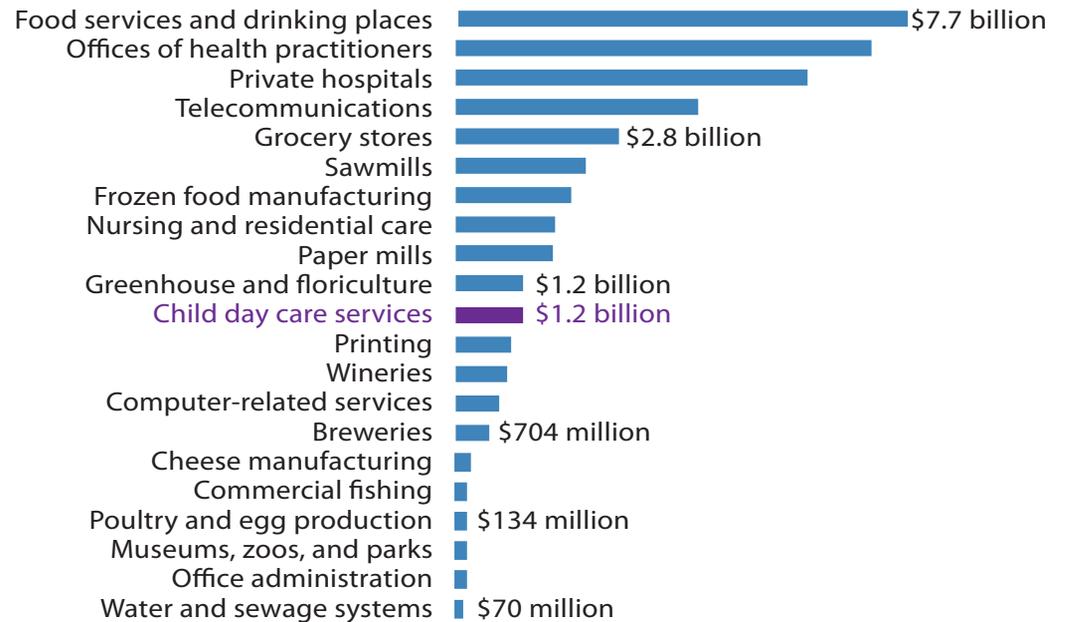
(All figures are in constant 2010 dollars.)

Child Care Generates More Than \$1 Billion in Gross Revenues

Figure 5 shows the child care industry's relative ranking among other Oregon industries in terms of gross revenues generated. Here, to put the billion-dollar figure in context, we selected a representative sampling from among the state's 410 industries: ten with higher revenues and ten with lower.



Figure 5: Oregon's Gross Revenues by Industry



Source: Edited state IMPLAN model—2008 data, MIG, Inc.

Child Care and the Great Recession

In December 2007, Oregon and the nation entered what is now known as the Great Recession. Oregon's unemployment rates have remained higher than the national average, reaching a peak of 12.2% statewide in March 2009.¹⁸

Contrary to expectations, employment in child care centers grew during the first full year of the recession. Continuing the steady growth of 23%

observed over the decade, it grew 4% in the first full year of the recession (2008). It is likely that at least some of the growth is due to cost-cutting measures that moved positions from full time to part time, thus increasing the number of people employed. The number of facilities also increased more than 20% during the decade, but there was only about 1.5% growth during the first year of the recession.¹⁹

It may be that child care, like health care, is an important resource that most people will continue to need and utilize long after they have given up other expenses. Unmeasured effects of the recession may well be affecting quality as centers cope by cutting costs through larger group sizes or increased child-to-adult ratios. Also unmeasured is the possibility that laid-off parents may have started their own child care businesses as a way to help make ends meet.

Child Care Employs Tens of Thousands

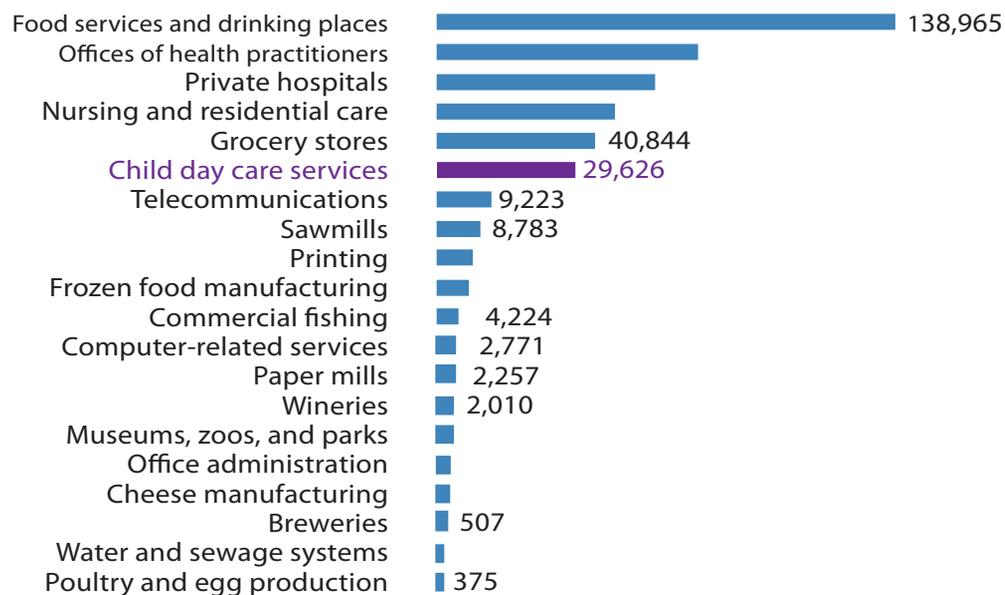
As Figure 6 shows, child care employs 29,626 people: more than Oregon's telecommunications, sawmill and paper mill, computer-related service, and winery industries combined. It ranks seventeenth among the state's 410 industries.

Child care is an important source of employment. But, as we have seen in the discussion of industry challenges, the wages child care center teachers receive are low, averaging \$9 to \$12.50 per hour.

The statewide average wage for child care workers in 2009 was \$21,447. This is comparable to animal caretakers and pet groomers at \$22,597, gas station attendants at \$20,405, and parking lot attendants at \$20,768.²⁰

The child care industry leaves a “footprint” on Oregon’s economy in the form of revenues, jobs, and spending.

Figure 6: Employment by Oregon Industry



Source: Edited state IMPLAN model—2008 data, MIG, Inc.

A Labor-Intensive, Low-Wage Occupation

Child care is labor intensive and pays poorly. Two statistics dramatically illustrate this reality.

Of the 410 industries in the Oregon economy, the child care industry employs more people than 393, ranking 17th.

At the same time, only 4% of the state's industries have lower average employee compensation per worker than the child care industry.²¹

The Child Care Industry and Related Household Spending Purchase a Billion Dollars in Goods and Services, Supporting Thousands of Jobs in Other Industries

Individual businesses in the child care industry purchase educational materials, building space, food, furniture, and other goods and services from the larger Oregon economy in order to do business. In turn, the households of owners and employees of these child care businesses spend

their profits and wages on additional goods and services, some of which support Oregon businesses. Figures 7 and 8 show that an estimated \$1 billion in purchases and more than 8,000 jobs are linked to child care expenditures across broad categories of Oregon industries.

Child care employs more people than Oregon's telecommunications, sawmill, paper mill, computer-related service, and winery industries combined.

Figure 7: Expenditures of the Child Care Industry within the Regional Economy

Real estate and rental	\$178,571,534
Finance and insurance	143,862,706
Manufacturing	95,607,375
Professional—scientific, technical services	76,453,460
Health and social services	70,895,480
Information	63,470,806
Government	58,174,958
Administration and waste services	56,474,498
Retail trade	55,562,672
Accommodation and food services	50,559,538
Wholesale trade	48,077,824
Other services	29,669,285
Transportation and warehousing	27,274,091
Utilities	20,809,391
Management of companies	16,017,910
Construction	15,955,325
Arts—entertainment, recreation	13,934,614
Agriculture, forestry, fishing, hunting	9,798,373
Educational services	7,588,736
Mining	1,719,545
Total	\$1,040,478,121

Source: Edited state IMPLAN model—2008 data, MIG, Inc.

Figure 8: Full- and Part-Time Jobs Linked to Purchases by the Child Care Industry

Administrative and waste services	1,038
Accommodation and food services	917
Retail trade	827
Health and social services	795
Finance and insurance	778
Real estate and rental	775
Professional—scientific, technical services	615
Other services	454
Arts—entertainment, recreation	282
Manufacturing	250
Government	248
Wholesale trade	240
Information	237
Transportation and warehousing	221
Educational services	167
Construction	148
Agriculture, forestry, fishing, hunting	107
Management	77
Utilities	26
Mining	6
Total	8,207

Source: Edited state IMPLAN model—2008 data, MIG, Inc.

Parents Using Child Care Span All Sectors of the Economy and Earn Billions in Wages

Child care enables parents to work in a variety of Oregon industries. Figure 9 shows the major sectors in which parents using child care are employed.

Figure 10 shows the total estimated wages parents using paid child care earn, based on a weighted average of parents' occupations.

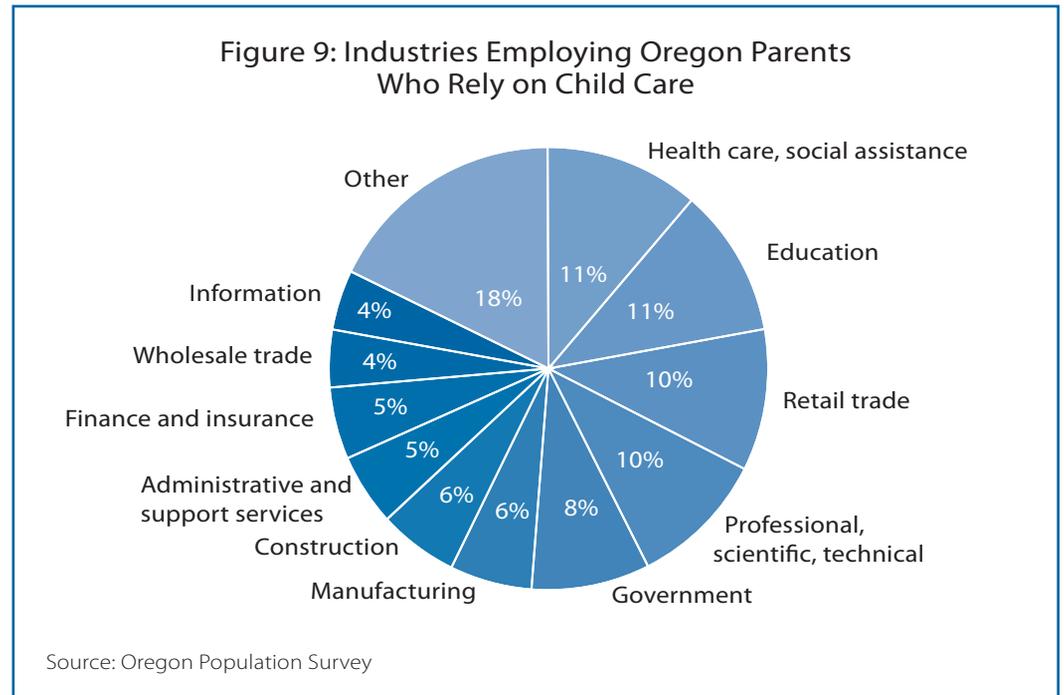


Figure 10: Earning Power of Parents Who Use Child Care

98,103 parents who rely on child care to work	x	\$43,903 median annual wage across parents' occupations	=	\$4.3 billion in wages earned by parents who rely on child care
--	---	--	---	---

Source: Bureau of Labor Statistics, Occupational and Wage Estimates for the State of Oregon (www.bls.gov/oes)

The Full Picture: Linkages to Working Parents Who Use Child Care

Figure 11 describes the jobs, wages, and revenues linked to parents who rely on child care to work. The jobs these parents hold generate new demand and new jobs in other industries, and the wages they earn (and spend in the Oregon economy) generate demand and jobs in other Oregon industries as well.

For example, a parent working as a cabinet-maker generates work in the forestry management, timber cutting, and sawmill industries. This parent also spends his or her wages at grocery stores and other retailers.

As the figure shows, a majority of jobs linked to these working parents are found in health care and social assistance, educational services, and retail industries, but jobs are found in a wide range of additional sectors

- These workers earn **\$8.4 billion** and generate total sales of **\$24.8 billion**.
- The support of child care allows an estimated **8% of Oregon's economy** to function productively (8.0% of all employment, 9.3% of all labor income, and 8.0% of the state's total gross revenue).

Figure 11: The Economic Impact of Child Care—Reliant Parents Across Industries

	Parents	Total Jobs	Income
Health care and social assistance	11,195	17,939	\$806,941,376
Educational services	10,583	14,214	385,314,592
Retail trade	10,042	14,134	462,207,168
Professional, scientific, technical services	9,851	19,631	1,008,102,016
Government	9,535	14,409	755,993,6004
Manufacturing	6,134	18,570	1,042,698,816
Construction	5,844	11,006	517,818,432
Administration	5,171	7,542	260,473,024
Finance and insurance	4,947	11,678	615,908,480
Wholesale trade	4,324	9,702	573,321,152
Information	4,142	12,767	677,172,992
Transportation and warehousing	2,969	5,372	261,478,656
Other services	2,765	4,252	137,095,200
Accommodation and food service	2,252	3,073	81,810,824
Agriculture, forestry, fishing, and hunting	2,179	3,555	113,426,512
Arts, entertainment, and recreation	2,009	2,962	75,292,400
Management	1,929	4,911	314,317,440
Real estate and rental and leasing	1,411	2,974	107,845,472
Mining	478	1,196	66,956,636
Utilities	345	1,118	88,355,960
Totals	98,104	181,005	\$8,352,530,748

Source: Edited state IMPLAN model—2008 data, MIG, Inc. Analysis by Bruce Sorte

The **Parents** column refers to workers who rely on paid child care, broken out by industry.

The **Total Jobs** column is the number of jobs held by both working parents who rely on child care (the Parents column) *and* the jobs that are made possible by their labor contribution. On average, each job a working parent holds supports one additional job.

The **Income** column contains the wages and profits of all employees and business owners who are linked to or directly rely on paid child care to work.

State Support for Child Care

While the median wage of parents using paid care is nearly \$44,000 (see Figure 10, page 13), retail workers in the state, for example, earn a median wage of \$25,589.²² State and federal programs provide important support for families who cannot afford child care given their current wages. Figure 12 shows the expenditures the state makes to help bridge this gap.

Figure 12: Sources of State Support

Child Care Program	State Investment
Department of Education expenditures	\$52,677,659
Head Start/Oregon Prekindergarten	51,906,604
Student parent programs/scholarships	771,055
Tax expenditures	\$44,966,667
Working family child care	21,900,000
Academies, day care, student housing	11,400,000
Child and dependent care	7,500,000
Disabled child tax credit	3,300,000
Child care contribution tax credit	666,667
Farm labor housing and day care centers	200,000
Oregon Commission on Children and Families expenditures	\$10,666,793
Healthy Start	10,666,793
Department of Human Services expenditures	\$9,382,019
Child care subsidy program—ERDC	5,555,949
Child care subsidy program—JOBS CC, CCDF	3,655,975
Supportive remedial day care	170,095
Employment Department expenditures	\$1,988,050
Regulation of early child care education and school-age facilities	1,912,842
Quality investments and administration	75,208
Total State Public Investment	\$119,681,188

Source: Child Care Division, Oregon Employment Department, based on state expenditures from July 1, 2008 to June 30, 2009

Child Care Draws Millions in Expenditures from Out of State, Employing Thousands

Nearly one-fifth of the total funding that supports Oregon's child care industry comes from outside the region, primarily from the federal government (see Figure 1, page 6). In fiscal year 2008 this share was approximately \$249 million (see Figure 13 on page 16), the majority of which was for programs such as Head Start, the ERDC subsidy program, and the Child and Adult Care Food program.

Money originating from outside Oregon can generate additional activity without offsetting in-state private or public investment. Any funding decision the state makes represents a choice to generate economic activity in one industry rather than another. However, when the federal government invests in child care, this generates economic activity in Oregon that may not have occurred otherwise.

As Figure 14 on page 16 shows, the federal dollars drawn into the state through child care support a total of 8,327 jobs in the Oregon economy. 1,569 of these jobs are in industries other than child care.

Figure 13: Child Care Expenditures from Outside Oregon

Federal Tax Expenditures:	\$28.8 million
Federal Program Expenditures	\$219.7 million
Business and Philanthropic Expenditures	\$600,000
Total External Funding:	\$249.1 million

Federal program expenditures are used to fund child care subsidies for low-income families, child care programs for migrant families, child care programs for children with special needs, Head Start programs, licensing, child care resource and referral programs, local programs, and quality improvement projects. Federal tax expenditures include child and dependent care tax credits for families who purchase child care. Estimates for federal tax expenditures are from 2001, the most recent data year available.

Source: Oregon Employment Department, Child Care Division for fiscal year 2008

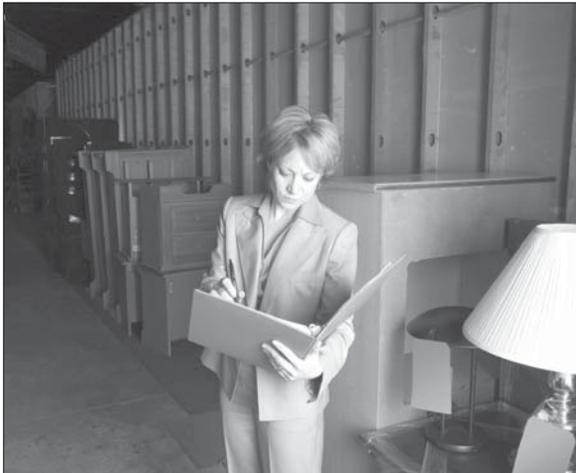


Figure 14: Employment Effects of Expenditures (\$249.1 Million) on Child Care from Outside Oregon

Industry	Full- and Part-Time Jobs
Child day care services	6,758
Administration	188
Accommodation and food services	176
Retail trade	174
Health and social services	154
Finance and insurance	145
Real estate and rental	144
Professional—scientific and tech services	114
Other services	92
Arts—entertainment and recreation	55
Manufacturing	47
Wholesale trade	47
Government	46
Information	44
Transportation and warehousing	42
Educational services	35
Construction	27
Agriculture, forestry, fishing, hunting	20
Management	14
Utilities	5
Mining	1
Total	8,327

Source: Edited state IMPLAN model—2008 data, MIG, Inc.



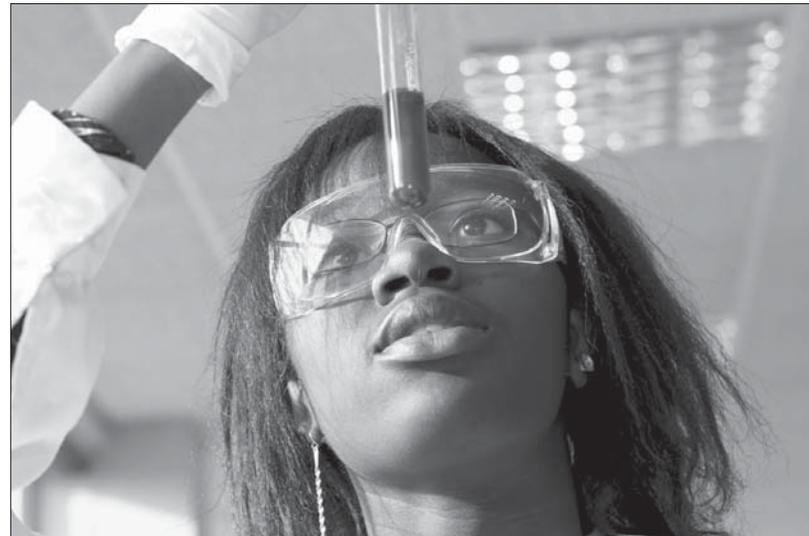
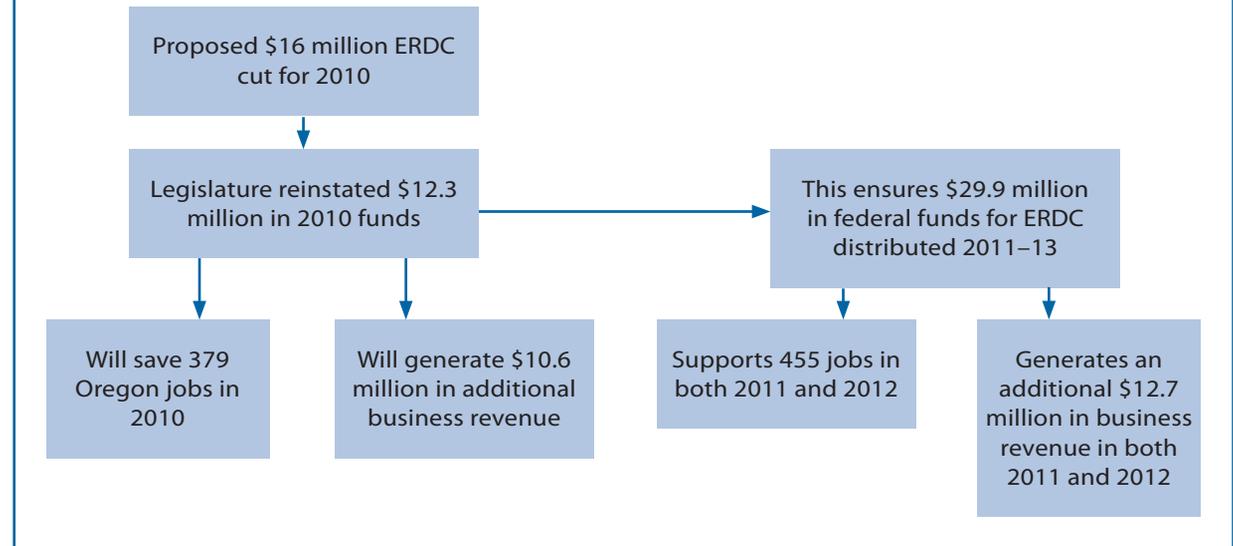
Recent State Legislation Impacting Federal Dollars

In the 2009 session, the state legislature reduced the Employee Related Day Care (ERDC) subsidy program to help balance the budget, imposing a cut of \$16.0 million to be implemented in July 2010. This risked the loss of an additional \$38.9 million in federal funds during the 2011–13 fiscal years.

In the 2010 special session, the legislature restored \$12.3 million of this amount. By doing so, it also secured \$29.9 million from the federal government. As a result, thousands of Oregon parents will be able to remain at work and avoid public assistance, a benefit not modeled in the estimated jobs shown in Figure 15.²³

Retaining this public funding will save jobs not only in the child care industry but in other linked industries and will preserve the revenues generated by business and household spending. As Figure 15 shows, it will save 379 jobs in the Oregon economy in 2010 alone and preserve federal funds that will support an additional 455 jobs in each year of the 2011–2013 biennium. The jobs supported by the state's investment will in turn generate an additional \$10.6 million in business revenue across the Oregon economy in 2010. The jobs supported by the leveraged federal funds will generate an additional \$12.7 million in business revenue each year of the 2011–2013 biennium.

Figure 15: The Economic Impact of the State Legislature's Action on ERDC Funding



Child Care: Return on Investment

Numerous studies from around the country have shown that investing in high-quality early child care and education pays multiple dollars for each dollar invested. Communities save money on remedial education, incarceration, and drug and alcohol treatment. Teen pregnancy rates decline. Children who receive high-quality early care do better in school and have higher earning potential as adults. Brief summaries of the results of two such studies follow.

The High/Scope Perry Preschool Study

This study is a landmark in the field. Conducted over the course of four decades, it followed a group of low-income three- and four-year-olds into adulthood. The study measured results in three different categories: social responsibility, scholastic success, and socioeconomic success. Compared to the control group, program participants had higher rates of academic achievement and pro-social behavior. They were more likely to graduate from high school and hold jobs, had higher incomes, and committed fewer crimes.

Participants had higher graduation rates, better grades, higher standardized test scores, and fewer placements in special education classes.

They spent more time on homework and had more positive attitudes toward school at ages 15 and 19.

By age 27, participants:

- Were nearly three times more likely to own their homes
- Were four times more likely to earn more than \$2,000 per month
- Were less than half as likely to be receiving public assistance
- Were three and a half times less likely to be arrested on drug-related offenses
- Were five times less likely to be frequent offenders (defined as five or more arrests)²⁴

The most recent High/Scope study found that for an investment of \$15,166 (per student over two years) there was an economic return to society of more than \$250,000—when both public and private benefits were taken into account. The vast majority of the public benefit (88%) came from crime savings.²⁵

A Rand Corporation study of the High/Scope program analyzed the data a little differently, tracking costs, savings, and benefits. It looked at welfare, criminal justice, and education services

costs as well as increased tax revenues on the higher incomes study participants earned (see Figure 16).²⁶

Figure 16: High/Scope Perry Preschool Program Savings and Benefits

Reductions in welfare	9%
Reductions in criminal justice	40%
Reductions in education services	25%
Increased taxes on higher incomes	26%
Total benefits of the program	100%



A Closer Look at the Cost of Crime

Because both analyses of the High/Scope study revealed that the greatest savings to taxpayers came in the form of reduced costs associated with crime, let's take a quick look at some criminal justice numbers in Oregon.

- In 2005, there were 34,140 juvenile arrests in Oregon, the equivalent of the population of Keizer.²⁷
- In 2004 it cost \$59,130 per year to house an Oregon youth in a juvenile correctional facility.²⁸
- It now costs \$84.46 per day to house an inmate in the state: more than \$30,000 per year.²⁹

The cost of incarceration is just the tip of the iceberg. It doesn't include (1) costs of arrest and trial (2) cost to the victim (3) offenders' lost wages while in prison and the resulting lost tax revenues or (4) high unemployment among ex-offenders, with low-wage service jobs usually their only option. The latter two factors make recidivism a tempting choice.

- In 2008, 14,079 people were behind bars in Oregon. Between 2000 and 2008, the state had the tenth largest increase in prison population in the country: 33.1 percent.³⁰

- Oregon spent \$684 million in fiscal year 2007 on corrections. For every dollar spent on higher education, it spent \$1.06 on corrections.³¹

The direct relationship between high-quality early child care and education and just one of the many benefits of such care—significant reductions in crime—makes a powerful argument for substantial investment.

The Carolina Abecedarian Project Study

A study published by the National Institute for Early Education Research tracked earning potential and other factors unrelated to crime. This cost-benefit analysis looked at the landmark Carolina Abecedarian Project in North Carolina, which provided intensive preschool programs to children in low-income families in the early 1970s. It found that every \$1 spent on a high-quality, full-day, year-round preschool program returned \$4 to the children, their families, and taxpayers.

An interesting aspect of this particular study is that it tracked the earning power of the children's mothers and of the succeeding generation—the participating children's children.³²

Among the findings:

- Children enrolled in the program are projected to make about \$143,000 more over their lifetimes than those not enrolled.

- Mothers of children who are enrolled can also expect greater earnings: about \$133,000 more over their lifetimes.
- School districts can expect to save more than \$11,000 per child because participants are less likely to require special or remedial education.
- Results even suggested a possible impact on smoking. Participants were less likely to smoke (39% were smokers vs 55% in the control group), resulting in health benefits and longer lives, for a total benefit of \$164,000 per person.
- The next generation (children of the children in the program) are projected to earn nearly \$48,000 more throughout their lifetimes.



These two studies demonstrate the great variety of benefits to be gained by investing in early childhood care.



Advancing the Industry

Throughout this report, we have seen the immense importance of the child care industry to the state's economy, its benefits to the children and families it serves, and the high return on investment to communities that offer high-quality care. Oregon's child care partner agencies continually strive to further strengthen this industry and increase its effectiveness. In the years since the last report was published, these partners have worked diligently to advance the field. Here is a brief recap of some of the recent forward movement we have seen.

Forward Movement on Affordability: ERDC

In 2005, we reported that low-income families receiving subsidies through the Department of Human Services' Employee Related Day Care (ERDC) program were able to access only about one-fourth of Oregon's child care market. This was because the program's reimbursement rates to child care providers were low—far below what providers charge.

Today, the picture is considerably brighter. At the urging of experts in the field, the 2007 legislature made a substantial investment in ERDC. Child care reimbursement rates increased significantly; now ERDC payments compensate providers at the 75th percentile of the 2006 Child

Care Market Rate Study, bringing state payments into line with rates the majority of providers charge. Between 2006 and 2008 prices rose but maximum payment rates did not. The 2008 Child Care Market Price Study found that current DHS reimbursements have improved low-income families' access to care from 26% of the child care market in 2006 to 68% in 2008.

In addition, the legislature increased the ERDC eligibility limit from 150 percent of the Federal Poverty Level to 185 percent and reduced co-payments by an average of 20 percent. This opened up the program to many more low-income working parents.

See page 17 for information on 2010 special legislative session action on ERDC funding.



Forward Movement on Quality: EQUIP

In 2005 we reported very briefly on two initiatives related to quality of care: the Child Care Quality Indicators Program (QIP, then only recently launched as a Multnomah County pilot project) and a demonstration project called Oregon CARES (Compensation and Retention Equals Stability). QIP was undertaken to address several problems: little was known about the quality of care in the state, quality itself was ill defined, and there was no system in place for measuring it. CARES was formed to address the lack of child development expertise among child care providers and the high turnover in the field; it offered providers scholarships and wage stipends as incentives to improve their knowledge and remain employed at their facilities.

Today we can report on an innovative, comprehensive statewide program to improve quality called EQUIP—the Education and Quality Investment Partnership. Firmly based in these earlier initiatives, EQUIP aims to strengthen the care and education workforce, leading to improvements in the quality of care.

For the first time, EQUIP links the efforts of the state's child care partners in a *single statewide*

quality-improvement strategy for care and education. And it does so through a combination of private and public funding.

Action on shaping and building EQUIP began in earnest in the spring of 2008 and has continued steadily since. Anchored by The Oregon Community Fund's investment in scholarships and enhanced with federal dollars from the American Recovery and Reinvestment Act targeting improvements in child care quality, Oregon has a public/private partnership with a well-developed quality investment plan in place.

How EQUIP Works: Two Parallel Tracks

EQUIP investments include both quality enhancement and accountability strategies. The program approaches quality improvements in two ways:

EQUIPPING INDIVIDUALS

Education awards. In its focus on individual teachers and caregivers, EQUIP offers child care professionals incentives to continue their education and build their skills and competencies. Scholarships are available for training and certification, including specialized certificates in Infant-and-Toddler Mental Health and Facility Director education. There are also financial incentives—Education Awards—that reward educational achievement and encourage continued schooling.

The Statewide Training and Education Database (TED). A centerpiece of EQUIP is the new

Oregon Registry Training and Education Database (TED), currently in development. TED will merge data on child care providers that is gathered from the Child Care Regulatory Information System (CCRIS), the Oregon Registry, and the child care resource and referral database. The Quality Indicators Program will receive training and education information from TED for the development of facility reports. Stakeholders will have verified data on the child care and education workforce and funders will be able to measure the impact of their investments.

EQUIPPING FACILITIES

Focusing on program- or facility-level improvements, EQUIP includes both an Oregon Program of Quality designation and the Quality Indicators Program (QIP)—Oregon's quality improvement and assessment system.

Oregon Program of Quality (OPQ). Currently under development and a key element of the child care facilities' improvement strategy, an OPQ designation means that a facility has met a new set of high quality standards.

OPQ provides attractive incentives for facilities to meet these standards. Incentives include investment in hard-to-find-care slots—such as infants and toddlers, odd-hour, school age, or children with special needs—and the potential to accept Early Head Start and Early Intervention children, all of which will lend stability to facility operations.

Quality Indicators Program (QIP). As of January 2010 the Quality Indicators Program is now statewide. QIP captures data on seven research-based structural indicators of quality and compares individual facility levels on each indicator to national standards and community averages. The seven indicators are:

- 1** staff/child ratios
- 2** group size
- 3** education levels (directors, teachers, family child care providers)
- 4** ongoing training
- 5** accreditation
- 6** compensation
- 7** staff retention

The goal is to provide parents, programs, and partners with current and accurate data regarding child care in Oregon. Child care partners are developing a website, funded by a grant from Meyer Memorial Trust, through which this information will be shared with parents and funders.

What the Facilities Strategy Will Accomplish

Parents will expect that a facility with an excellent QIP report and an OPQ designation is a highly professional environment staffed by teachers and caregivers who are committed to childhood education, as well as to their own expanding knowledge of it. Providers will be able to compare their level of quality with that of competitors and use their QIP reports and OPQ designation

as powerful marketing tools. For researchers, QIP data assist in tracking the levels of quality and the impacts of investments over time.



EQUIP builds upon lessons learned from pilots and demonstration projects throughout the years and moves the state ahead by leaps and bounds in improving the quality of care for Oregon's children.



Notes

1. Roberta Weber and Jerri Wolfe. (2003). Improving Child Care: Providing Comparative Information on Child Care Facilities to Parents and the Community. Available at http://www.hhs.oregonstate.edu/hdfs/sites/default/files/2003_Improving_ChildCare.pdf
2. Oregon Child Care Research Partnership. Analysis of 2009 Quality Indicator Program Data. Oregon State University.
3. Ibid.
4. Oregon Child Care Research Partnership. Analysis of 2008 Child Care Resource & Referral Network data. Oregon Child Care Resource and Referral Network.
5. Oregon Child Care Research Partnership. (2008). 2008 Oregon Child Care Market Price Study. Oregon State University. Available at www.hhs.oregonstate.edu/hdfs/sites/default/files/2008_Child_Care_Market_Price_Study.pdf
6. Shelley Waters Boots. *The Way We Work: How Children and Their Families Fare in a 21st Century Workplace*. New America Foundation Work and Family Program research paper, December 2004.
7. Phase II Compilation: SB555 Coordinated Comprehensive Plans for Children and Families, (2003, February). Partners for Children and Families. <http://egov.oregon.gov/OCCF/About/apub.shtml>
8. Oregon 2009 Benchmark Performance Report, www.oregon.gov/DAS/OBP
9. Oregon Child Care Research Partnership. Analysis of 2008 Oregon Population Survey data. Oregon State University.
10. Ibid.
11. Ibid.
12. Ibid.
13. Oregon Child Care Research Partnership and the Oregon Population Center, Portland State University.
14. Ibid.
15. Ibid.
16. Ibid.
17. Ibid.
18. Oregon Employment Department, Local Area Unemployment Statistics, data not seasonally adjusted.
19. Oregon Employment Department, statewide Covered Wages and Employment data 2001–2009.
20. Occupational Employment Survey, Oregon Employment Department.
21. Edited state IMPLAN model—2008 data and V3 2009 software, Minnesota IMPLAN Group, Inc., IMPLAN System, www.implan.com
22. Oregon Employment Department, statewide Covered Wages and Employment data 2009 found at www.qualityinfo.org
23. Child Care Affordability Work Group finding, published in 2010 Special Session Edition, Oregon Commission for Child Care Report to the Governor and Legislature, p. 18.
24. U.S. Department of Justice, Office of Juvenile Justice and Delinquency Programs. (2000, October). Juvenile Justice Bulletin. Available at www.ncjrs.gov/pdffiles1/ojjdp/181725.pdf
25. Children’s Institute. 2005, Spring. Investing in Early Childhood Development: Investing in Oregon’s Future. Issue Brief No. 1. Available at www.childinst.org/images/stories/ci_publications/issue-brief-1.pdf
26. Juvenile Justice Bulletin, October 2000.
27. Children’s Institute. Issue Brief No. 1, Spring 2005.
28. Ibid.
29. Oregon Department of Corrections. (2010) Issue Brief. Available at www.oregon.gov/DOC/PUBAFF/docs/pdf/IB_53_quick_facts.pdf
30. *The World Almanac Book of Facts 2010*. New York: World Almanac Books, 2010.
31. Available at www.pbs.org/now/shows/419/states-prisons.html#here
32. Leonard N. Masse & W. Steven Barnett, *A Benefit Cost Analysis of the Abecedarian Early Childhood Intervention*. New Brunswick, NJ: National Institute for Early Education Research, 2002; <http://nieer.org/mediacenter/index.php?pressID=9>

Acknowledgments

The economic analysis in this report was completed by Oregon State University faculty: Mallory L. Rahe, M.S., Extension Community Economist and Bruce Sorte, M.A.I.S., Extension Community Economist.

Dr. Roberta Barsotti-Weber and Sonja Svenson, Program Development Officer, Oregon Employment Department, Child Care Division, provided invaluable contributions in collecting and analyzing the state-specific data used to customize the IMPLAN model for the economic analysis. Bruce A. Weber, Ph.D., Professor, Department of Agriculture and Resource Economics and Extension Economist, provided valuable feedback and comments. Funding for their work was provided by the Oregon Employment Department.

We acknowledge the pioneering work of Dr. Mildred Warner, Professor of City and Regional Planning at Cornell University, focusing on the economic impact of the child care industry.



For more information about this report, contact
Child Care Division, Oregon Employment Department
875 Union Street, Salem, OR 97311
503-947-1400 (Salem)
1-800-556-6616
www.oregon.gov/EMPLOY/CCD/