

APPENDIX B

Gap and Cost Analyses

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Introduction

This is Appendix B to the “Making affordable, high-quality early learning and care accessible to all children in the Walla Walla Valley” executive summary. This appendix quantifies the facilities and direct service costs associated with eight scenarios for expanding early learning and care access and affordability.

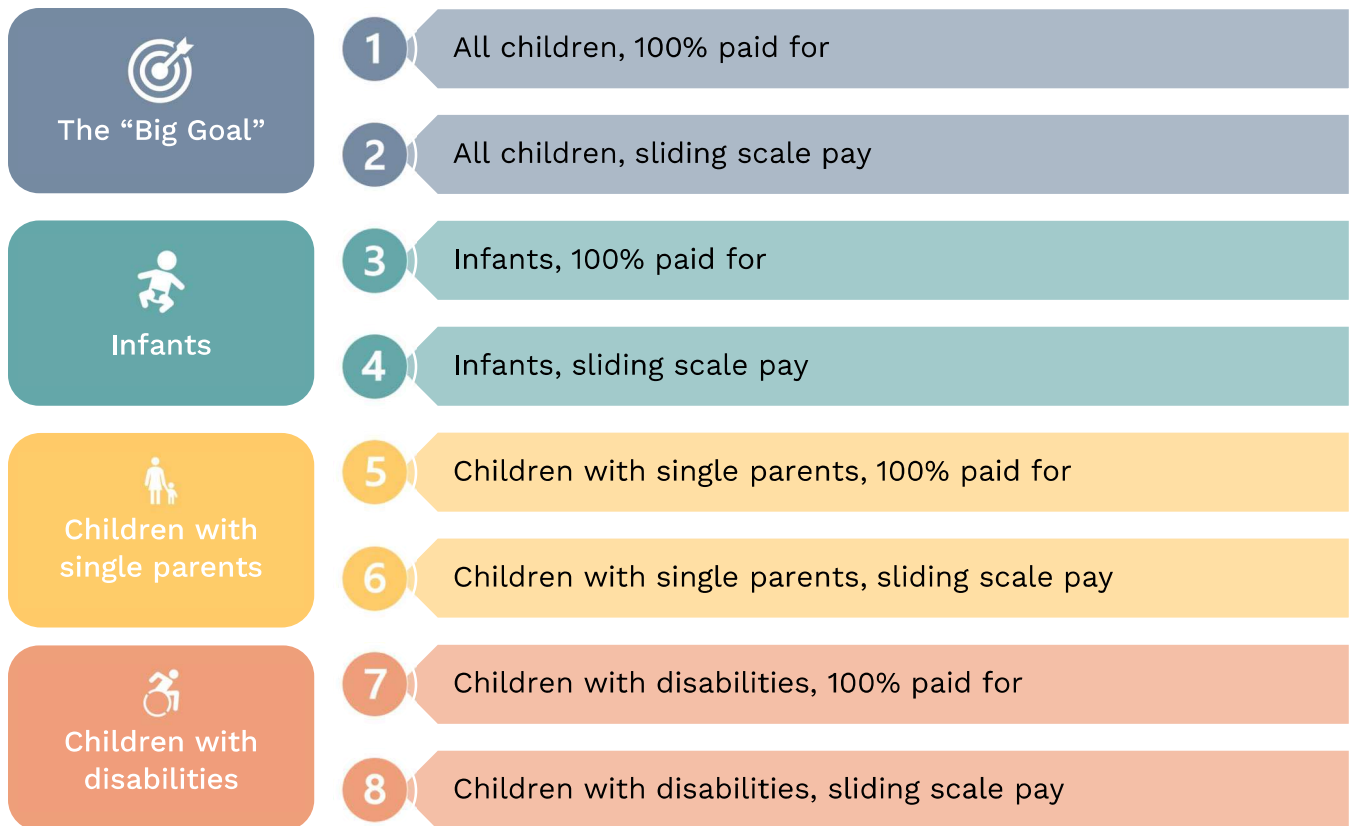
We focus on facilities and direct service costs as the primary and most significant considerations that need to be funded to reach the Elevate Work Group’s “Big Goal.” For all children to be served, there must be a place for them to go and making high-quality early learning and care affordable for all

households will involve expanding the number of subsidized slots beyond existing state subsidies and public programs. Any local subsidy or other strategies must help sustain private child care providers who serve an important role in the early learning and care ecosystem.

Scenario summary

The following eight scenarios were identified as scenarios of interest by and developed with input from the Elevate Work Group (Figure 5). As Scenario 1 and others illustrate, achieving “Big Goal” will be expensive. Therefore, scenarios quantify costs for different levels of participation and parent pay.

FIGURE 5 | Cost of care scenarios



Scenario assumptions

Figure 6 outlines the basic equation used to estimate the costs, which is to calculate the one-time costs associated with building new or renovating old facilities to accommodate all children who need or want care and then to calculate the annual costs of providing direct services to the children occupying those spaces. For these calculations, facility costs are calculated with the number of children who are not currently served by any program (i.e., do not have any type of care), whereas the annual direct service costs are calculated using the number of children not currently served by a public program (see Appendix A for more information). Complete methodology can be found in the Methodology appendix.

ANNUAL DIRECT SERVICE COSTS

The scenarios address the total need along with the breakdown of costs specifically for the project's priority populations. Costs for

each priority group were calculated with two different cost scenarios. Scenarios 1, 3, 5, and 7 calculate the total costs that would be required to provide free-for-all care (100% of child care slots are paid for by a local subsidy program, 0% is paid by parents). Scenarios 2, 4, 6, and 8 calculate the costs associated with a sliding scale parent pay, which assumes that families living over 600% of federal poverty level (FPL) can afford to pay all costs associated with child care, families living under 300% FPL cannot afford to pay any child care costs, and families between 300% and 600% FPL would pay a portion of costs based on their income. For our sliding scale calculations, we assume households between 300% and 600% FPL would pay 50% of their early learning and care costs on average and the subsidy program would cover the remaining amount.

Table 16 shows the average cost of care per child by age and care type that was used to estimate total costs.

FIGURE 6 | Cost of early learning and care calculation overview



TABLE 16 | Monthly and annual costs of care, by care type and child age¹

	Age of child	Center-based care	Home-based care	Average price per age
MONTHLY	Infant (<1)	\$1,300	\$1,452	\$1,376
	Toddler (1-2)	\$1,080	\$1,300	\$1,190
	Preschooler (3-4)	\$985	\$1,056	\$1,020
YEARLY	Infant (<1)	\$15,600	\$17,424	\$16,512
	Toddler (1-2)	\$12,960	\$15,600	\$14,280
	Preschooler (3-4)	\$11,820	\$12,672	\$12,246

In the sliding scale models, it is assumed that 51% of children under 5 years of age live in families with annual household income below 300% FPL, 29% live in families with annual household income between 300% and 600% FPL, and 20% of children live in families with household income over 600% FPL. These rates are based on Washington State level data (Preschool For All: A Strong Start for Washington State’s Children²).

PARTICIPATION RATES

Costs for each of the scenarios will depend on child participation rates, which vary by age and location.

Case studies reviewed had no consistent methodology for determining the expected participation rate. Department of Children, Youth, and Families (DCYF)³ uses a rate of 63%, which is based on the percent of children with all available parents in the workforce; Preschool For All: A Strong Start for Washington State’s Children ⁴used a sliding scale participation rate that varied between 30% and 85%, depending on age and the family’s relation to FPL; and the Whatcom County fiscal mapping study, titled Financing Early Learning and Care in

Whatcom County: Understanding the Current Child Care Financing Landscape and Charting a Path Forward⁵ used a rate of 77%, which is based on results of a parent survey they conducted.

Using these rates as a guide, the Elevate Work Group decided to look both at the costs associated with 100% participation rate (all children enroll) and the costs associated with a participation rate of 71%.

FACILITIES COSTS

Reaching the “Big Goal” will require establishing new center-based and home-based child care operations. The path to having adequate space is not clear-cut and will require building new and renovating old facilities as well as renovating or adding onto home-based provider’s houses, all which have prices that will vary greatly by capacity and age of facility. Facility costs will be one-time costs to build or renovate a center or home.

In general, costs to renovate provider’s homes to meet the requirements for home-based child care licensing will be less than costs to build or renovate buildings for center-based licensed care. Each center-

based slot has an associated cost of \$50,000 while each home-based slot has an associated cost of \$10,000 (Table 17). These rates are estimations based on key informant interviews and recent facilities planning processes underway in the region and are meant to provide a general idea of the scope of facilities costs needed to meet the need for more classrooms and space.

For the estimates provided in each scenario, it is assumed that 70% of to-be-added slots are to be center-based slots and 30% will be home-based slots. This ratio of center-to-home-based slots is based on the current center-to-home-based slot ratio in the project area.

The number of slots needed for facilities is different than the number of children who need direct service care. While children who require direct services are calculated by subtracting the total children served by a public program from the total number of children in the project area, the children who require facilities is calculated by subtracting the total current capacity of all programs from the total children in the project area. Facility costs have already been completed and paid for existing programs and are assumed not to need additional facility funds to serve their current capacity (expanding facilities to meet increased capacity is accounted for in the facility calculations).

Maintenance of facilities built with these one-time costs are assumed to be included in the annual direct service costs associated with each child care slot.

TABLE 17 | Facility cost model assumptions

	Center-based	Home-based
Price per slot	\$50,000	\$10,000
Percent of total slots	70%	30%

Scenario 1: All children, 100% subsidized

ANNUAL DIRECT SERVICE COSTS

Table 18 provides the costs associated with Scenario 1. Scenario 1 subsidizes all children under 5 who require direct services not already provided by a public program, which totals 3,077 children at a 100% participation rate and 2,184 children at a 71% participation rate. Estimated annual direct service costs range from \$31,064,568 at 71% participation to \$43,752,912 with 100% participation.

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 1 range from \$53,420,000 assuming a 71% participation rate to \$75,240,000 assuming a 100% participation rate (Table 19).

TABLE 18 | Scenario 1 Annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	520	\$8,581,616
	1	513	\$7,320,213
	2	521	\$7,441,879
	3	344	\$4,208,215
	4	287	\$3,512,642
	Total	2,184	\$31,064,568
100% PARTICIPATION	<1	732	\$12,086,784
	1	722	\$10,310,160
	2	734	\$10,481,520
	3	484	\$5,927,064
	4	404	\$4,947,384
	Total	3,077	\$43,752,912

TABLE 19 | Scenario 1 & 2 facility costs

	71% PARTICIPATION		100% PARTICIPATION	
	Number of children	Costs	Number of children	Costs
HOME-BASED	422	\$4,220,000	594	\$5,940,000
CENTER-BASED	984	\$49,200,000	1,386	\$69,300,000
TOTAL	1,406	\$53,420,000	1,980	\$75,240,000

Scenario 2: All children, sliding scale

ANNUAL DIRECT SERVICE COSTS

Table 20 provides the costs associated with Scenario 2. Scenario 2 serves all children under 5 who require direct services not already provided by a public program, with a sliding scale used to determine the portion of costs that families would pay. Total children served would remain 3,077 at a 100% participation rate and 2,184 children at a 71% participation rate.

With the sliding scale, estimated annual direct service costs range from \$20,347,292 at 71% participation to \$28,658,157 with 100% participation.

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 2 are identical to Scenario 1 (same number of children who need facilities) and range from \$53,420,000 assuming a 71% participation rate to \$75,240,000 assuming a 100% participation rate (Table 19).

TABLE 20 | Scenario 2 annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	520	\$5,620,959
	1	513	\$4,794,740
	2	521	\$4,874,431
	3	344	\$2,756,381
	4	287	\$2,300,781
	Total	2,184	\$20,347,292
100% PARTICIPATION	<1	732	\$7,916,843
	1	722	\$6,753,154
	2	734	\$6,865,395
	3	484	\$3,882,226
	4	404	\$3,240,536
	Total	3,077	\$28,658,157

Scenario 3: Infants, 100% subsidized

ANNUAL DIRECT SERVICE COSTS

Table 21 provides the costs associated with Scenario 3. Scenario 3 serves all infants under 1 year old who require direct services, which totals 732 children at a 100% participation rate and 520 children at a 71% participation rate. Estimated annual direct service costs range from \$8,581,616 at 71% participation to \$12,086,784 at 100% participation.

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 3 range from \$18,240,000 assuming a 71% participation rate (480 infants total) to \$25,680,000 assuming a 100% participation rate (676 infants total) (Table 22).

TABLE 21 | Scenario 3 Annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	520	\$8,581,616
	1	513	\$7,320,213
	2	521	\$7,441,879
	3	344	\$4,208,215
	4	287	\$3,512,642
	Total	520	\$8,581,616
100% PARTICIPATION	<1	732	\$12,086,784
	1	722	\$10,310,160
	2	734	\$10,481,520
	3	484	\$5,927,064
	4	404	\$4,947,384
	Total	732	\$12,086,784

TABLE 22 | Scenario 3 & 4 facility costs

	71% PARTICIPATION		100% PARTICIPATION	
	Number of children	Costs	Number of children	Costs
HOME-BASED	144	\$1,440,000	203	\$2,030,000
CENTER-BASED	336	\$16,800,000	473	\$23,650,000
TOTAL	480	\$18,240,000	676	\$25,680,000

Scenario 4: Infants, sliding scale

ANNUAL DIRECT SERVICE COSTS

Table 23 provides the costs associated with Scenario 4. Scenario 4 serves all infants under 1 year old who require direct services, with a sliding scale used to determine the portion of costs that families would pay. Total children served would remain 732 at a 100% participation rate and 520 children at a 71% participation rate.

With the sliding scale, estimated annual direct service costs range from \$5,620,959 at a 71% participation rate to \$7,916,843 with 100% of children participating.

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 4 are identical to Scenario 3 and range from \$18,240,000 assuming a 71% participation rate to \$25,680,000 assuming a 100% participation rate (Table 22).

Table 23 | Scenario 4 Annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	520	\$5,620,959
	1	513	\$4,794,740
	2	521	\$4,874,431
	3	344	\$2,756,381
	4	287	\$2,300,781
	Total	520	\$5,620,959
100% PARTICIPATION	<1	732	\$7,916,843
	1	722	\$6,753,154
	2	734	\$6,865,395
	3	484	\$3,882,226
	4	404	\$3,240,536
	Total	732	\$7,916,843

Scenario 5: Children in single-parent households, 100% subsidized

ANNUAL DIRECT SERVICE COSTS

Table 24 provides the costs associated with Scenario 5. Scenario 5 serves all children under 5 who are living in single-parent households who require direct services not already provided by a public program, which totals 738 children at a 100% participation rate and 524 children at a 71% participation rate. Estimated annual direct service costs range from \$7,455,496 at 71% participation to \$10,500,699 at 100% participation.

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 5 range from \$13,870,000 assuming a 71% participation rate (339 children from single-parent households) to \$18,080,000 assuming a 100% participation rate (476 children from single-parent households) (Table 25).

TABLE 24 | Scenario 5 annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	125	\$2,059,587
	1	123	\$1,756,851
	2	125	\$1,786,051
	3	82	\$1,009,971
	4	69	\$843,034
	Total	524	\$7,455,496
100% PARTICIPATION	<1	176	\$2,900,828
	1	173	\$2,474,438
	2	176	\$2,515,564
	3	116	\$1,422,495
	4	97	\$1,187,372
	Total	738	\$10,500,699

TABLE 25 | Scenario 5 & 6 facility costs

	71% PARTICIPATION		100% PARTICIPATION	
	Number of children	Costs	Number of children	Costs
HOME-BASED	102	\$1,020,000	143	\$1,430,000
CENTER-BASED	237	\$11,850,000	333	\$16,650,000
TOTAL	339	\$13,870,000	476	\$18,080,000

Scenario 6: Children in single-parent households, sliding scale

ANNUAL DIRECT SERVICE COSTS

Table 26 provides the costs associated with Scenario 6. Scenario 6 serves all children under 5 who are living in single-parent households who require direct services not already provided by a public program, with a sliding scale used to determine the portion of costs that families would pay. Total children served would remain 738 at a 100% participation rate and 524 children at a 71% participation rate.

With the sliding scale, estimated annual direct service costs range from \$4,883,350 at a 71% participation rate to \$6,877,958 with 100% of children participating.

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 6 are identical to Scenario 5 and range from \$13,870,000 assuming a 71% participation rate to \$18,080,000 assuming a 100% participation rate (Table 25).

TABLE 26 | Scenario 6 annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	125	\$1,349,030
	1	123	\$1,150,738
	2	125	\$1,169,863
	3	82	\$661,531
	4	69	\$552,187
	Total	524	\$4,883,350
100% PARTICIPATION	<1	176	\$1,900,042
	1	173	\$1,620,757
	2	176	\$1,647,695
	3	116	\$931,734
	4	97	\$777,729
	Total	738	\$6,877,958

Scenario 7: Children with disabilities, 100% subsidized

ANNUAL DIRECT SERVICE COSTS

Table 27 provides the costs associated with Scenario 7. Scenario 7 serves all children under 5 who have a disability and require direct services not already provided by a public program, which totals 190 children at a 100% participation rate and 135 children at a 71% participation rate. We calculated these population estimates by multiplying the number of children by age not served by public programs by the average rate of children under 18 with disabilities in the project area. Documented disability rates for children under 5 years old are extremely inaccurate due to low diagnosis of non-physical disabilities in this age group; therefore, using the rate of children under 18 provides a closer estimate to the real number of children under 5 who have disabilities but perhaps are not yet diagnosed.

These estimates do not account for the possibility that children with disabilities are currently being served by public programs at a greater rate than children without disabilities because children with disabilities are automatically eligible for public programs despite income thresholds. These estimates assume that the disability rate for the remaining children not served by public programs is the same as the general disability rate.

These calculations also do not account for any extra supports (staff, equipment, etc.) that may be required on a case-by-case basis to provide direct services to children with disabilities.

Due to the difficulty of calculating accurate population estimates and the assumptions

made in these models, it is important to note that these are rough, “ball-park” estimates.

Estimated annual direct service costs range from \$1,914,707 at a 71% participation rate to \$2,696,700 with 100% of children with disabilities participating.

TABLE 27 | Scenario 7 annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	32	\$528,939
	1	32	\$451,191
	2	32	\$458,690
	3	21	\$259,379
	4	18	\$216,506
	Total	135	\$1,914,707
100% PARTICIPATION	<1	45	\$744,985
	1	45	\$635,480
	2	45	\$646,042
	3	30	\$365,322
	4	25	\$304,938
	Total	190	\$2,696,700

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 7 range from \$3,370,000 assuming a 71% participation rate (99 children with disabilities total) to \$4,670,000 assuming a 100% participation rate (123 children with disabilities total) (Table 28).

TABLE 28 | Scenario 7 & 8 facility costs

	71% PARTICIPATION		100% PARTICIPATION	
	Number of children	Costs	Number of children	Costs
HOME-BASED	27	\$270,000	37	\$370,000
CENTER-BASED	62	\$3,100,000	86	\$4,300,000
TOTAL	99	\$3,370,000	123	\$4,670,000

Scenario 8: Children with disabilities, sliding scale

Table 29 provides the costs associated with Scenario 8. Scenario 8 serves all children under 5 who have a disability and require direct services not already provided by a public program, with a sliding scale used to determine the portion of costs that families would pay. Total children served would remain at 190 at a 100% participation rate and 135 children at a 71% participation rate.

With the sliding scale, estimated annual direct-service costs range from \$1,254,133 at a 71% participation rate to \$1,766,385 with 100% of children participating.

FACILITY COSTS

One-time costs to establish enough facilities to meet the need of Scenario 8 are identical to Scenario 7 and range from \$3,370,000 assuming a 71% participation rate (99 children with disabilities total) to \$4,670,000 assuming a 100% participation rate (123 children with disabilities total) (Table 28).

TABLE 29 | Scenario 8 annual direct service costs by age and participation rate

	Age of child	Number of children	Annual direct service costs
71% PARTICIPATION	<1	125	\$346,455
	1	123	\$295,530
	2	125	\$300,442
	3	82	\$169,893
	4	69	\$141,812
	Total	135	\$1,254,133
100% PARTICIPATION	<1	176	\$487,965
	1	173	\$416,240
	2	176	\$423,158
	3	116	\$239,286
	4	97	\$199,735
	Total	190	\$1,766,385

Summary

Table 30 summarizes and compares all direct-service and facility costs associated with each of the eight scenarios.

TABLE 30 | Summary of direct-service and facility costs associated with each scenario

SCENARIO	DIRECT SERVICES (annually reoccurring)		FACILITIES (one-time)	
	71% PARTICIPATION	100% PARTICIPATION	71% PARTICIPATION	100% PARTICIPATION
1 All children 100% subsidized	\$31,064,568	\$43,752,912	\$55,174,100	\$75,240,000
2 All children sliding scale	\$20,347,292	\$28,658,157	\$55,174,100	\$75,240,000
3 Infants 100% subsidized	\$8,581,616	\$12,086,784	\$18,211,500	\$25,650,000
4 Infants sliding scale	\$5,620,959	\$7,916,843	\$18,211,500	\$25,650,000
5 Children in single-parent household 100% subsidized	\$7,455,496	\$10,500,699	\$13,241,784	\$18,650,400
6 Children in single-parent household sliding scale	\$4,883,350	\$6,877,958	\$13,241,784	\$18,650,400
7 Children with disabilities 100% subsidized	\$1,914,707	\$2,696,700	\$3,420,794	\$4,818,020
8 Children with disabilities sliding scale	\$1,254,133	\$1,766,385	\$3,420,794	\$4,818,020

Endnotes

¹ Berkson, Brianna. (2021). *2021 Washington State Child Care Market Rate Study*. State of Washington Department of Children, Youth, and Families. [ChildCareMarketRateStudy2021.pdf \(wa.gov\)](#)

² Weiland, Christina, Burgess, Tim, Chaudry, Ajay, Kagi, Ruth, Shapiro, Anna, Moran, Casey. (2021). *Preschool for All: A Strong Start for Washington State's Children*. University of Michigan. [FINAL_Washington_Preschool_for_All_Policy_Brief_November_2021.pdf \(umich.edu\)](#)

³ *Child Care Need and Supply Data*. (2021). Washington State Department of Children, Youth, and Families. [Child Care Need and Supply Data | Washington State Department of Children, Youth, and Families](#)

⁴ Weiland, Christina, Burgess, Tim, Chaudry, Ajay, Kagi, Ruth, Shapiro, Anna, Moran, Casey. (2021). *Preschool for All: A Strong Start for Washington State's Children*. University of Michigan. [FINAL_Washington_Preschool_for_All_Policy_Brief_November_2021.pdf \(umich.edu\)](#)

⁵ *Financing Early Learning and Care in Whatcom County: Understanding the Current Child Care Financing Landscape and Charting a Path Forward*. (2021). Chuckanut Health Foundation. [Financing Early Learning and Care in Whatcom County \(squarespace.com\)](#)