

Methodology and Assumptions
DES/DDD Published Rate Schedule
August 25, 2003

Introduction

This document presents the assumptions and methodology used by DES/DDD in compiling the benchmark rate schedule. This document is generally divided into the following sections:

- Data Sources,
- General Assumptions,
- Rate Models for Selected Services:
 - In-Home Services,
 - Day Treatment and Training Services,
 - Residential Services,
 - Professional Services, and
 - Other Services

This document presents a discussion of the assumptions used in the rate models. The rate examples presented in this document are generally for agency (RFP) providers only. A non-RFP rate was developed for several services based on the agency provider rate. These non-RFP rates are lower than the agency rates because of a reduction for employee-related expenses and administrative overhead, as well as a general cap at 75% of the agency (RFP) rate, for all services except Day Treatment and Training.

Also, it should be noted that the rates presented in this document (Benchmark Rates) are different from the actual reimbursement rates (Adopted Rates) that appear in the Published Rate Schedule. This is a result of DES/DDD constraint to implement a published rate system in a budget neutral manner. This constraint has forced the Division to scale back the Benchmark Rates. The Adopted Rates (or Actual Reimbursement Rates) are generally fixed at the greater of 93% of Adopted Rate or SFY03 Floor Rate. Room and Board services in group homes is an exception to this general rule. In this service category, the Adopted Rates are set at 100% of the Benchmark rate, even though this amount is below the SFY03 Floor Rate.

A memo at the end of this document describes the modifiers that have been incorporated into the published rate schedule.

Data Sources

The following general sources were used in constructing the models:

- ❑ Wage data from the Bureau of Labor Statistics (BLS) was used to determine the hourly wages for specific occupational categories.
- ❑ The Department of Administration, General Accounting Office data was used for the mileage reimbursement rate.
- ❑ Inflation data from the *Health Care Cost Review*, published by DRI-WEFA, CMS Home Health Agency Market Basket, Q1 2002 was used to inflate wage costs.
- ❑ Rent expense is based on data from the Department of Housing and Urban Development for Fair Market Rents (FMR) for federal fiscal year 2003.
- ❑ Arizona's Intermediate Care Facilities for the Mentally Retarded (ICF/MF) three-level rate structure was used to determine the rate for Habilitation, Nursing Supported Group Home.
- ❑ Food expense is based on USDA Moderate-Cost Plan variations as of August 2002, inflated to December 2003.

General Assumptions

The following general assumptions were used throughout the rate models:

- ❑ The inflation factor for all wage categories is 7.85%. This reflects inflation of 4.2% during 2001 and 3.5% during 2002.
- ❑ Employee-related expenses (ERE) is assumed at 30% of the respective wages for all full-time staff. Benefits include legally required benefits, vacation time, sick leave, holidays and health insurance. (See *Employee-Related Expenses Assumptions* discussion below).
- ❑ Total Hours assumed at 8 hours per day and 2,080 hours per year (unless otherwise indicated).
- ❑ With 365 days in a year, the average number of days per month assumed at 30.4.
- ❑ Administrative overhead assumed at 10% of total non-travel cost (unless otherwise indicated).

Wage Assumptions

Wages were selected based on occupational descriptions provided by BLS. Depending on the required activities provided in the service descriptions, certain services reflect a blended rate of wage averages of more than one occupation. Following is a table of Arizona statewide data on employment and hourly wages as of December 2000.

*Arizona Statewide Data on Employment and Hourly Wages **

SOC Code	Occupational Title	Arizona	
		Number of Employees	Mean Wage (Hourly)
11-9151	Social and Community Service Managers	2,050	\$19.88
21-1015	Rehabilitation Counselors	880	\$13.11
21-1021	Child, Family, and School Social Workers	4,790	\$14.87
21-1091	Health Educators	490	\$21.82
21-1093	Social and Human Service Assistants	3,250	\$11.04
29-1111	Registered Nurses	28,680	\$22.63
29-2061	Licensed Practical and Licensed Vocational Nurses	8,690	\$14.67
31-1011	Home Health Aides	9,820	\$8.04
39-9021	Personal and Home Care Aides	2,510	\$8.46
39-9032	Recreation Workers	5,500	\$10.06
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	29,850	\$7.94
37-2012	Maids and Housekeeping Cleaners	18,070	\$7.07

*Source: Bureau of Labor Statistics, December 2000

Employee-Related Expenses Assumptions

A 30% ERE rate was used for agency providers. The thirty percent was derived from the following information:

Agency Providers (RFP)

		Base Rate	Base Rate	Base Rate
Hourly Rate		\$8.09	\$9.12	\$10.99
Annual Wage		\$16,827	\$18,970	\$22,859
FUTA	0.80%	\$56	\$56	\$56
FICA	7.65%	\$1,287	\$1,451	\$1,749
Legally required benefits	8.45%	\$1,343	\$1,507	\$1,805
Vacation	80 hrs/yr	\$647	\$730	\$879
Sick Leave	48 hrs/yr	\$388	\$438	\$528
Holidays	72 hrs/yr	\$582	\$657	\$791
Health Insurance	\$170	\$2,040	\$2,040	\$2,040
Total ERE per employee		\$5,001	\$5,371	\$6,043
		29.72%	28.31%	26.43%

A 20.5% ERE rate was used for non-agency providers. The 20.5% was derived from the following information:

Non-Agency Providers (non-RFP)

		Base Rate	Base Rate	Base Rate
Hourly Rate		\$8.09	\$9.12	\$10.99
Annual Wage		\$16,827	\$18,970	\$22,859
FUTA	0.80%	\$56	\$56	\$56
FICA	7.65%	\$1,287	\$1,451	\$1,749
Legally required benefits	8.45%	\$1,343	\$1,507	\$1,805
Vacation	0 hrs/yr	\$0	\$0	\$0
Sick Leave	0 hrs/yr	\$0	\$0	\$0
Holidays	0 hrs/yr	\$0	\$0	\$0
Health Insurance	\$170	\$2,040	\$2,040	\$2,040
Total ERE per employee		\$3,3383	\$3,547	\$3,845
		20.11%	18.70%	16.82%

Multi-Client Rate Adjustments

With some services, it is possible to provide the same service simultaneously to multiple clients. The formula for the multi-client rate adjustment is as follows:

- $(\text{Regular Rate} * ((1 + (25\% * \text{number of additional clients}))) / \text{Total number of clients.}$

In-Home Services

In-Home services include the following service codes, provided by DDD-accredited service providers:

- ANC/AFC – Attendant Care
- HAH – Habilitation, Support
- HSK – Housekeeping
- RSP/RSD – Respite (short-term and continuous)
- HAI – Habilitation, Individually Designed Living Arrangement
- HPH – Habilitation, Community Protection and Treatment Hourly

Attendant Care – ANC and AFC

It is the intention of the DDD to combine ANC and AFC into one rate. Two different models, however, were originally developed to reflect different assumptions in travel time and mileage allowance between these two services. The final model presented below represents the ANC rate model, which results in the higher rate.

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$9.12	This assumption is consistent with Arizona statewide hourly wage for Personal and Home Care Aide (SOC Code 39-9021) of \$8.46, taken from BLS as of December 2000 and inflated to December 2002 (7.85%).
ERE	30.0% of wages	At 20%, rate is \$13.08 with transportation
Average number of client visits per day	2 visits	
Average travel	15 minutes per day	One travel between clients
Notes and medical records	15 minutes per day	
Average on-site time	7.50 hours per day	Billable Hours – difference between Total Hours and other productivity components
Mileage	5 miles	Average distance for one travel
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	10%	
Benchmark Rate	\$14.15	\$13.92 without transportation

Habilitation, Support – HAH

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$10.99	- 5% Arizona statewide hourly wage for Social and Community Services Managers (SOC Code 11-9151) of

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
		\$19.88 - 25% Rehabilitation Counselors (SOC Code 21-1015) of \$13.11 - 70% Personal and Home Care Aide (SOC Code 39-9021) of \$8.46 All wages were taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
ERE	30.0% of wages	At 20%, rate is \$16.73 with transportation
Average number of client visits per day	3 visits	
Average travel	30 minutes	Two travels between clients
Notes and medical records	15 minutes per day	
Average on-site time	7.25 hours per day	Billable Hours – difference between Total Hours and other productivity components
Mileage	15 miles	Average distance for each travel of 7.5 miles
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	10%	
Benchmark Rate	\$18.06	\$17.35 without transportation

Housekeeping – HSK

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$8.09	- 50% Arizona statewide hourly wage for Janitors and Cleaners (SOC Code 37-2011) of \$7.94 - 50% Arizona statewide hourly wage for Maids and Housekeeping Cleaners (SOC Code 37-2012) of \$7.07 Wages taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
ERE	30.0% of wages	At 20%, rate is \$12.09 with transportation
Average number of client visits per day	3 visits	
Average travel	30 minutes	Two travels between clients
Notes and medical records	0	
Average on-site time	7.50 hours per day	Billable Hours – difference between

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
		Total Hours and other productivity components
Mileage	15 miles	Average distance for each travel of 7.5 miles
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	10%	
Benchmark Rate	\$13.04	\$12.35 without transportation

Respite, short-term – RSP

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$9.12	This assumption is consistent with Arizona statewide hourly wage for Personal and Home Care Aide (SOC Code 39-9021) of \$8.46, taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
ERE	30.0% of wages	At 20%, rate is \$12.82 with transportation
Average number of client visits per day	2 visits	
Average travel	15 minutes per day	One travel between clients
Notes and medical records	6 minutes per day	
Average on-site time	7.65 hours per day	Billable Hours – difference between Total Hours and other productivity components
Mileage	5 miles	Average distance for one travel
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	10%	
Benchmark Rate	\$13.87	\$13.64 without transportation

Respite, continuous – RSD

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	1 day	Equivalent to 13 hours
Hourly wage	\$9.12	Same as Respite short
ERE	30.0% of wages	At 20%, rate is \$158.55
Average travel	0	Continuous service for one client
Notes and medical records	0	
Average on-site time	8.00 hours per day	Billable Hours – difference between Total Hours and other productivity components
Mileage	0	No travel

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Mileage reimbursement	None	
Administrative overhead	10%	
Benchmark Rate	\$169.61	

Habilitation, Individually Designed Living Arrangement – HAI

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$12.36	<ul style="list-style-type: none"> - 10% Arizona statewide hourly wage for Social and Community Services Managers (SOC Code 11-9151) of \$19.88 - 40% Rehabilitation Counselors (SOC Code 21-1015) of \$13.11 - 50% Personal and Home Care Aide (SOC Code 39-9021) of \$8.46 All wages were taken from BLS as of December 2002 and inflated to December 2002 (7.85%).
ERE	30.0% of wages	At 20%, rate is \$16.84 with transportation
Travel time for Employee	0	Assumes employee stays at one residence for the entire shift
Notes and medical records	15 minutes per day	
Average on-site time	7.75 hours per day	Billable Hours – difference between Total Hours and other productivity components
Administrative overhead	10%	
Benchmark Rate	\$18.25	

Habilitation, Community Protection and Treatment Hourly – HPH

The hourly rate for this service is equivalent to the staff hour rate for Habilitation, Community Protection and Treatment Group Home, described in the *Residential Services Rate Models* section below.

Day Treatment and Training Services

Individual rate models were developed for Day Treatment and Training for adults (DTA) and children (DTT).

General Assumptions

The Day Treatment and Training programs have different assumptions for adults' as opposed to the children's programs.

The following general assumptions were made for the DTA programs:

- Four models were developed to distinguish different ratios of total direct care service staff hours with consumers present at the program to total consumer hours.
- DTA facility assumed in service 250 days per year, although expenses are allocated over 200 days of client attendance, which was assumed as the level of attendance for DTA consumers. This assumption was derived from the data obtained from the Division's "700 Club" claims processing system.
- Total hours assumed at 8 hours per day.
- Average productivity at the program assumed at 7 hours.
- Each DTA center assumed to have 16 consumers per day.
- Capital expense assumed as follows:
 - Each DTA center assumed to have 2,000 square feet.
 - Average cost per square foot assumed at \$12.00 per annum.
- Transportation expense assumed as follows:
 - Total vehicle expense assumed at \$40,000, with a five-year straight-line depreciation and expressed as a daily expense of \$47.06.
 - Total insurance expense assumed at \$3,600 per year, expressed as a daily expense of \$21.18.
 - Vehicle allocation assumed at 20 (twenty) percent for program-related transportation and 80 (eighty) percent for pick-up and drop off of consumers.
 - Staff hour allocation assumed at 20 (twenty) percent for supervision of consumers during pick-up and drop off and 80 (eighty) percent for transportation service.

The following general assumptions were made for the DTT programs:

- The DDD established one common rate model for both DTT programs – After-School and Summer.
- Four models were developed to distinguish different ratios of total direct care service staff hours with consumers present at the program to total consumer hours.
- Employee related expenses (ERE) assumed at 15 (fifteen) percent due to the part-time nature of the job.
- DTA facility assumed in service 240 days per year (20 week days each month).
- Total hours assumed at 4.25 hours per day.
- Average productivity at the program assumed at 4 hours.
- Each DTT center assumed to have 6 consumers per day.
- Capital expense assumed as follows:
 - Each DTT center assumed to have 1,000 square feet.
 - Average cost per square foot assumed at \$10.00 per annum.

- Transportation capital expense assumed as follows:
 - Total vehicle expense assumed at \$26,000, with a five-year straight-line depreciation and expressed as a daily expense of \$21.67 based on the number of days facility is in service ($\$26,000 / 5\text{yrs} / 240\text{ days} = \21.67 per day).
 - Total insurance expense assumed at \$3,600 per year, expressed as a daily expense of \$15.00 based on the number of days facility is open ($\$3,600 / 240\text{ days} = \15.00 per day).
 - Vehicle allocation assumed at 20 (twenty) percent for program-related transportation and 80 (eighty) percent for pick-up and drop off of consumers.
 - Staff hour allocation assumed at one hour for transportation services.

Service-Specific Assumptions

The following assumptions were made for each Day Treatment and Training service category:

Day Treatment and Training, Adult (DTA)

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	1 client hour of program	
Hourly wage	\$13.22	<ul style="list-style-type: none"> - 10% Arizona statewide hourly wage Social and Community Service Managers (SOC Code 11-9151) of \$19.88 - 40% Rehabilitation Counselors (SOC Code 21-1015) of \$13.11 - 50% Recreation Workers (SOC Code 39-9032) of \$10.06. All wages taken from BLS as of December 2000 and inflated to December 2002 (7.85%).
ERE	30.0% of wages	
Time allocated to direct care travel and compensated in the transportation rate	0.8 hour	For each staff member
Time allocated to facility preparation and notes	0.2 hour	For each staff member
Average on-site time	7.00 hours per day	Billable Hours – difference between Total Hours and other productivity components
Number of staff members	Varies	Based on ratio of total direct care service staff hours with consumers present at the program to total consumer hours
Number of individuals	16	
Mileage: program-related	2 miles per day	

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Mileage: consumer pick-up and drop-off	10 miles per day	In transportation model
Mileage reimbursement	34.5 cents per mile	
Capital expense	\$7.50	Per consumer per day
Total for program transportation cost	\$3.97	Per consumer per day; includes cost of mileage and allocation of capital, insurance and staff time
Supplies	\$1.00	Per consumer per day
Program Compliance	2%	Program activity expense
Administrative overhead	10%	
Transition Staffing Factor	85%	Temporary adjustment that results in increased rate
Benchmark Rate	Varies	Range of ratio rates from \$7.87 (ratio of 1 : 3.5) to \$4.16 (1 : 9.5)

Day Treatment and Training, Children (DTT) – After-School and Summer Programs

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	1 client hour of program	
Hourly wage	\$13.22	<ul style="list-style-type: none"> - 10% Arizona statewide hourly wage Social and Community Service Managers (SOC Code 11-9151) of \$19.88 - 40% Rehabilitation Counselors (SOC Code 21-1015) of \$13.11 - 50% Recreation Workers (SOC Code 39-9032) of \$10.06. All wages taken from BLS as of December 2000 and inflated to December 2002 (7.85%).
ERE	15.0% of wages	
Time allocated to facility preparation/ notes	15 minutes	For each staff member
Average on-site time	4.00 hours per day	Billable Hours – difference between Total Hours and other productivity components
Number of staff members	Varies	Based on ratio of total direct care service staff hours with consumers present at the program to total consumer hours
Number of individuals	6	
Mileage: program-related	2 miles per day	
Mileage: consumer pick-up and drop-off	10 miles per day	In transportation model

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Mileage reimbursement	34.5 cents per mile	
Capital expense	\$6.94	Per consumer per day
Total transportation cost	\$1.91	Per consumer per day; includes cost of mileage and allocation of capital, insurance and staff time
Food	\$1.00	Per consumer per day
Supplies	\$1.00	Per consumer per day
Administrative overhead	10%	
Transition Staffing Factor	90%	Temporary adjustment that results in increased rate
Benchmark Rate	Varies	Range of ratio rates from \$8.05 (ratio of 1 : 3.5) to \$4.84 (1 : 9.5)

Rural DTA Rate

A rural rate for Day Treatment and Training, Adult was developed for agency providers. The Rural DTA model is similar to a regular DTA model, except for the following differences:

- ❑ The Rural DTA model is based on 6 consumers.
- ❑ Each Rural DTA center assumed to have 1,000 square feet.
- ❑ The transportation capital assumes a lower annual vehicle cost and a higher mileage for both program-related and pick-up/drop-off transportation.

Rural Day Treatment and Training, Adult (DTA)

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	1 client hour of program	
Hourly wage	\$13.22	<ul style="list-style-type: none"> - 10% Arizona statewide hourly wage Social and Community Service Managers (SOC Code 11-9151) of \$19.88 - 40% Rehabilitation Counselors (SOC Code 21-1015) of \$13.11 - 50% Recreation Workers (SOC Code 39-9032) of \$10.06. All wages taken from BLS as of December 2000 and inflated to December 2002 (7.85%).
ERE	30.0% of wages	
Time allocated to direct care travel and compensated in the transportation rate	0.8 hour	For each staff member
Time allocated to facility preparation and notes	0.2 hour	For each staff member
Average on-site time	7.00 hours per day	Billable Hours – difference between

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
		Total Hours and other productivity components
Number of staff members	Varies	Based on ratio of total direct care service staff hours with consumers present at the program to total consumer hours
Number of individuals	6	
Mileage: program-related	4 miles per day	
Mileage: consumer pick-up and drop-off	20 miles per day	In transportation model
Mileage reimbursement	34.5 cents per mile	
Capital expense	\$10.00	Per consumer per day
Total for program transportation cost	\$7.02	Per consumer per day; includes cost of mileage and allocation of capital, insurance and staff time
Supplies	\$1.00	Per consumer per day
Program Compliance	2%	Program activity expense
Administrative overhead	10%	
Transition Staffing Factor	85%	Temporary adjustment that results in increased rate
Benchmark Rate	Varies	Range of ratio rates from \$8.74 (ratio of 1 : 3.5) to \$5.03 (1 : 9.5)

Residential Services – Group Home

Individual rate models were developed for providers with Habilitation, Group Home (HAB) and Habilitation, Community Protection and Treatment Group Home (HPD). Each model consists of two parts: the Habilitation Service part and the Room and Board part.

Purpose of the Rate Model

Traditionally, DDD reimbursed its Residential Services providers with a daily unit rate. The purpose of the HAB and HPD rate models is to express the Habilitation Service part of the model in terms of an hourly Full-Time Equivalency (FTE) unit.

Room and Board, All Group Homes (RRB) Assumptions

The following assumptions were made for Room and Board, All Group Homes (RRB), rate models:

- Capital expense assumption is Rental payments based on the size of the facility and its geographical location as indicated in Table 1:

Table 1

	Number of bedrooms					
	1	2	3	4	5	6
Flagstaff	\$660	\$857	\$1,149	\$1,380	\$1,587	\$1,825
Phoenix-Mesa	\$641	\$806	\$1,121	\$1,320	\$1,518	\$1,746
Tucson	\$513	\$683	\$949	\$1,119	\$1,287	\$1,480
Yuma/Yavapai	\$478	\$636	\$884	\$890	\$1,024	\$1,177
Non-metropolitan	Same as Yuma/Yavapai					

- Utility assumptions outlined in Table 2 are based on research from Arizona Public Service Online Home Analyzer tool as of October 17, 2002 and the City of Phoenix Manager's Executive Report for 1999-2000:

Table 2

	Number of bedrooms (per month costs)					
	1	2	3	4	5	6
Gas	\$28.63	\$32.49	\$36.35	\$40.14	\$43.82	\$47.52
Electricity	\$84.71	\$97.68	\$109.98	\$121.36	\$132.26	\$144.15
Water, trash, etc.	\$31.59	\$31.59	\$31.59	\$31.59	\$31.59	\$31.59
Total	\$144.93	\$161.76	\$177.92	\$193.09	\$207.67	\$223.26

- Maintenance expense assumed at \$50 per month for a two-bedroom facility (assuming a three-person occupancy), with \$15.00 decrease/increase for each additional bedroom as indicated in Table 3:

Table 3

	Number of bedrooms					
	1	2	3	4	5	6
Maintenance	\$45.00	\$50.00	\$55.00	\$60.00	\$65.00	\$70.00

- Telephone expense assumed at \$25 per month for a two-person occupancy, with \$5.00 decrease/increase for each additional person as indicated in Table 4:

Table 4

	Number of persons					
	1	2	3	4	5	6
Telephone	\$20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$45.00

\$50 for 7 persons; \$55 for 8 persons

- On average, meal expense assumed at \$218.35 per person per month. Meal expense is based on USDA Moderate-Cost Plan variations as of August 2002, inflated to December 2003, as indicated in Table 5:

Table 5

Food per person per month	
20-50 years	\$225.26
51 years and over	\$211.44
Average	\$218.35

Vehicle Assumptions

The following assumptions were made about vehicle expense both HAB and HPD:

- Vehicle lease assumed at \$500 per month.
- Vehicle insurance assumed at \$200 per month.
- Vehicle maintenance assumed to be included in mileage reimbursement at 34.5 cents per mile.
- Either same type of vehicle is utilized in group homes of different capacity and vehicles last longer in group homes with smaller capacity, or group homes with smaller capacity purchase vehicles that are cheaper than those of group homes with larger capacity.
- There are 173.33 hours per month (2,080 / 12).

The following methodology was used to convert the vehicle expense (fixed cost) into the hourly FTE unit:

- From the HAB SFY 01 payment file provided by DDD:
 - It was assumed that July 2001 capacity is equivalent to 100% utilization.
 - All 522 sites were sorted based on July 2001 capacity.
 - From the distribution of capacity, number of corresponding sites and average FTE per site, it was assumed that the average FTE per site increases with the increasing capacity as indicated in Table 6:

Table 6

Capacity	Number of Sites	Average FTE per Site	Median FTE per Site	Std. Dev. FTE per Site
1	40	3.69	3.80	2.24
2	85	4.71	4.67	1.88
3	121	5.95	6.23	1.73
4	152	6.55	6.26	1.56
5	79	7.07	6.75	1.66
6	35	6.70	6.50	1.45
7	3	8.96	8.75	1.32
8	2	9.87	9.87	5.82
9	2	11.47	11.47	6.25
10	2	7.96	7.96	0.65
11	1	7.30		
>=6	45	7.27	6.90	2.23
>=7	10	9.28	8.09	3.25
>=8	7	9.41	7.50	3.89

- 472 sites with capacity between two and six clients, or 90% of the total number of sites, were evaluated as indicated in Table 7:

Table 7

Capacity	Number of Sites	Average FTE per Site	Median FTE per Site	Std. Dev. FTE per Site
Total for all cap	522	6.02	6.22	2.06
2 <= cap >= 6	472	6.16	6.23	1.84

- Vehicle expense per FTE was converted according to the following formula: (\$700 fixed vehicle expense per month) / ((6.16 average FTE per site) x (173.33 hours per month)) = 65.56 cents per FTE hour.

Transportation Assumptions

The following assumptions were made about transportation expense:

- On average, total daily mileage allowance per facility assumed at 40 miles, as indicated in Table 8:

Table 8

Activity	Mileage
Doctor's appointment	10
Day Treatment and Training or similar	20
Recreational activities	10
Total	40

- Total average hours per day assumed at 35, calculated as: (6.16 average FTE per site) x (2,080 hours per year) / (365 days per year) = 35.1 hours per day.

- On average, every direct care staff member has 1.14 miles of work-related commute per hour, calculated as: (40 miles per day) / (35.1 hours per day) = 1.14 miles per hour.

Service-Specific Assumptions

The following assumptions were made for each Residential Services category:

Habilitation, Group Home – HAB

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$10.99	<ul style="list-style-type: none"> - 5% Arizona statewide hourly wage for Social and Community Services Managers (SOC Code 11-9151) of \$19.88 - 25% Rehabilitation Counselors (SOC Code 21-1015) of \$13.11 - 70% Personal and Home Care Aide (SOC Code 39-9021) of \$8.46 All wages were taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
ERE	30.0% of wages	At 20%, rate is \$15.82 with transportation
Average travel	0	Included in the "billable hours"
Notes and medical records	0	
Average on-site time	8.00 hours per day	Billable Hours – difference between Total Hours and other productivity components
Mileage	1.14 miles	Based on transportation assumptions
Mileage reimbursement	34.5 cents per mile	
Program Compliance	2%	Program activity expense
Administrative overhead	10%	
Benchmark Rate	\$17.06	\$16.66 without transportation

Habilitation, Community Protection and Treatment Group Home – HPD

HPD is similar in structure and service to HAB, with the following exceptions:

- 10 (ten) percent premium on wages.
- 2 (two) percent premium on program compliance.

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$12.09	<ul style="list-style-type: none"> - 5% Arizona statewide hourly wage for Social and Community Services Managers (SOC Code 11-9151) of \$19.88 - 25% Rehabilitation Counselors (SOC

Assumption/Result	Value	Comments
		Code 21-1015) of \$13.11 - 70% Personal and Home Care Aide (SOC Code 39-9021) of \$8.46 All wages were taken from BLS as of December 2000 and inflated to December 2002 (7.85.) Then 10% premium was added to blended wage.
ERE	30.0% of wages	At 20%, rate is \$17.59 with transportation
Average travel	0	Included in the "billable hours"
Notes and medical records	0	
Average on-site time	8.00 hours per day	Billable Hours – difference between Total Hours and other productivity components
Mileage	1.14 miles	
Mileage reimbursement	34.5 cents per mile	
Program Compliance	4%	2% premium over HAB
Administrative overhead	10%	
Benchmark Rate	\$18.97	\$18.58 without transportation

The HPD model is also applicable to Habilitation, Community Protection and Treatment Hourly (HPH), an In-Home Service mentioned in the *In-Home Services* section above.

Habilitation, Nursing Supported Group Home – HAN

The HAN rates are based on 80 percent of the Arizona's Intermediate Care Facilities for the Mentally Retarded (ICF/MR) ICFMR rates for three levels. Table 9 outlines the ICF/MR HAN rates.

Table 9

Level	ICF/MR Rates	HAN Rates (80% of ICF/MR)
Level I	\$316.95	\$253.56
Level II	\$390.89	\$312.71
Level III	\$453.56	\$362.85

Table 10 illustrates assumptions that resulted in the reduction of the ICF/MR rates by 20 percent.

Table 10

	Level I	Level II	Level III	Comments
ICF/MR Rate	\$316.95	\$390.89	\$453.56	
Deductions				
Room and Board	\$18.27	\$18.27	\$18.27	Per RRB model at 4 occupants in a 4-capacity

	Level I	Level II	Level III	Comments
				group home in Phoenix-Mesa
Formula	\$6.00	\$6.00	\$6.00	Per Cost Study provided by the Division
Feeding Supply	\$9.67	\$9.67	\$9.67	Per Cost Study provided by the Division
Incontinence Supplies	\$3.00	\$3.00	\$3.00	Rate modifier, will be approved by the Division on a case-by-case basis.
Pharmaceuticals	\$7.00	\$7.00	\$7.00	Assumption
Day Programs	\$42.00	\$42.00	\$42.00	7 hours at billing staff-to-consumer ratio of 1:5.5
Cost savings vs. ICF/MR	\$15.85	\$19.54	\$22.68	Assumed at 5%
Total Deductions	\$101.79	\$105.48	\$108.62	
Net Amount	\$215.16	\$285.41	\$344.94	
% of ICF/MR	67.9%	73.0%	76.1%	
Adopted Rate	\$253.56	\$312.71	\$362.85	
% of ICF/MR	80%	80%	80%	

Room and Board, All Group Homes – RRB

It is assumed that room and board requirements are the same for all group home services (HAB, HPD and HAN). Table 11 indicates the daily per-person Room and Board rate with the following assumptions:

- ❑ This is a two-bedroom facility.
- ❑ There are three individuals in this facility.
- ❑ This facility is located in Flagstaff metropolitan area.

Table 11

<u>Assumption</u>	<u>Calculation</u>	<u>Monthly Value</u>	<u>Daily Value</u>
Rent	\$857/3	\$285.67	\$9.39
Utilities	\$161.76/3	\$53.92	\$1.77
Telephone	(\$25+\$5)/3	\$10.00	\$0.33
Maintenance	\$50/3	\$16.67	\$0.55
Food	\$218.35/1	\$218.35	\$7.18
Total		\$584.60	\$19.22

The Room and Board rate is based on the average individual occupancy in the facilities of different sizes (number of bedrooms).

Residential Services - Developmental Home

Individual rate models were developed for developmental home habilitation for adults (HBA) and children (HBC), which are also applicable for service codes HAA and HAC. Also, a separate model was developed for the agency provider costs, which is only applicable to service codes HBA and HBC.

Service-Specific Assumptions

The following general assumptions were made for both HBA and HBC rate models:

- ❑ Costs calculated on *per individual per day* basis.
- ❑ Administrative overhead is assumed at 2 (two) percent of total non-travel cost.
- ❑ For adults (HBA), the food expense assumed at \$220.21 per person per month, or \$7.24 per person per day, based on USDA Moderate-Cost Food Plan variations (for males) as of August 2002, inflated to December 2003, as indicated in Table 12. The USDA costs can be viewed at www.usda.gov.

Table 12

	Monthly	Daily
12-14 years	\$217.92	\$7.17
15-19 years	\$226.22	\$7.44
20-50 years	\$225.26	\$7.41
51 years and over	\$211.44	\$6.96
Assumed Cost: average	\$220.21	\$7.24

- ❑ For children (HBC), the food expense assumed at \$199.00 per person per month, or \$6.55 per person per day, based on USDA Moderate-Cost Food Plan variations as of August 2002, inflated to December 2003, as indicated in Table 13. The USDA costs can be viewed at www.usda.gov.

Table 13

	Monthly	Daily
1-2 years	\$110.13	\$3.62
3-5 years	\$127.14	\$4.18
6-8 years	\$170.41	\$5.61
9-11 years	\$199.00	\$6.55
Assumed Cost: max. expense	\$199.00	\$6.55

Adults (Family Payment) – HBA/HAA

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	1 day	
Number of days receiving service	365	
Square footage	170	
Cost per square foot	\$10.00	Includes maintenance, utilities, phone
Meals per individual per day	\$7.24	Refer to Table 12
Total RRB	\$11.90	
Habilitation hours	4	
Habilitation hourly rate	\$13.35	Consistent with the HAH non-RFP rate
Monthly number of miles	200 miles	
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	2%	
Total Payment to Family	\$69.43	Includes RRB

HBC/HAC – Children (Family Payment)

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	1 day	
Number of days receiving service	365	
Square footage	195	
Cost per square foot	\$10.00	Includes maintenance, utilities, phone
Meals per individual per day	\$6.55	Refer to Table 13
Total RRB	\$11.90	
Habilitation hours	4	
Habilitation hourly rate	\$13.35	Consistent with the HAH non-RFP rate
Monthly number of miles	200 miles	
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	2%	
Total Payment to Family	\$69.43	Includes RRB

HBA/HBC (Agency Provider Payment)

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	1 day	
Years family is under agency supervision	5	
Days per year family under agency supervision	365	
Initial Home Licensure, per year	\$220	ACYF rate of \$750 inflated to December 2004 (32.3%), multiplied by 10% DDD premium, spread over 5 years
Licensure Renewal, per year	\$484	55% of Initial Home Licensure, spread over 5 years
Hourly wage for training staff	\$16.04	This assumption is consistent with Arizona statewide hourly wage for Child, Family and School Social Worker (SOC Code 21-1021) of \$14.87, taken from BLS as of December 2000 and inflated to December 2002 (7.85%).
ERE	30.0% of wages	
Initial Training, per year	\$84	20 hours, spread over 5 years
Ongoing Training, per year	\$168	10 hours, spread over 5 years
Respite/Relief, per year	\$9,100	(720 hours) x (provider respite rate (RSP) without admin. overhead)
Habilitation, per year	\$830	(50 hours) x (provider habilitation rate (HAH) without admin. overhead)
Attendant Care	\$650	(50 hours) x (provider attendant care rate (ATC) without admin. overhead)
Hourly wage for administrative/ Monitoring staff	\$13.97	<i>Blended Rate:</i> - 50% Arizona statewide hourly wage for Child, Family and School Social Worker (SOC Code 21-1021) of \$14.87 - 50% Social and Human Service Assistant (SOC Code 21-1093) of \$11.04 Wages taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
ERE	30.0% of wages	
Number of family visits per year	26	One visit every two weeks, on average
Duration of family visit	1 hour	
Mileage, per year	1,200 miles	100 miles per month

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	10%	
Total Retained by Agency	\$37.33	
Total Payment to Family	\$69.43	\$11.90 for RRB and \$57.54 for Other
Total Payment to Agency	\$106.76	\$94.86 without RRB

Professional Services

Therapies

At this time, the Division is not setting rates for Therapies through independent models. Therefore, rate models were developed for Home Health Aide (HHA) and Nursing (NUR) services only.

Home Health Aide - HHA

Assumption/Result	Value	Comments
Unit of Service	60 minutes	
Hourly wage	\$8.67	This assumption is consistent with Arizona statewide hourly wage for Home Health Aide (SOC Code 31-1011) of \$8.04, taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
ERE	30.0% of wages	
Average number of client visits per day	3 visits	
Average travel	40 minutes	Two travels between clients
Notes and medical records	30 minutes per day	10 minutes per visit
Average on-site time	6.90 hours per day	Billable Hours – difference between Total Hours and other productivity components
Supervisor hourly wage	\$24.41	This assumption is consistent with Arizona statewide hourly wage Registered Nurse (SOC Code 29-1111) of \$22.63, taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
Daily portion of supervision	15 minutes a day	
Mileage	30 miles	Average distance for each travel of 15 miles
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	10%	
Benchmark Rate	\$16.72	

Nursing, short-term – NUR

<u>Assumption/Result</u>	<u>Value</u>	<u>Comments</u>
Unit of Service	60 minutes	
Hourly wage	\$20.11	<i>Blended Rate:</i> - 50% Arizona statewide hourly wage for Registered Nurse (SOC Code 29-1111) of \$22.63 - 50% Licensed Practical and Licensed Vocational Nurses (SOC Code 29-2061) of \$14.67 All wages were taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
ERE	30.0% of wages	
Average number of client visits per day	3 visits	
Average travel	40 minutes	Two travels between clients
Notes and medical records	30 minutes per day	10 minutes per visit
Average on-site time	6.90 hours per day	Billable Hours – difference between Total Hours and other productivity components
Supervisor hourly wage	\$24.41	This assumption is consistent with Arizona statewide hourly wage Registered Nurse (SOC Code 29-1111) of \$22.63, taken from BLS as of December 2000 and inflated to December 2002 (7.85%)
Daily portion of supervision	15 minutes a day	
Mileage	30 miles	Average distance for each travel of 15 miles
Mileage reimbursement	34.5 cents per mile	
Administrative overhead	10%	
Benchmark Rate	\$35.69	

Nursing, continuous – NUR

If nursing is provided for more than 16 hours in one day, this is considered to be Nursing, Continuous. One unit of Nursing, Continuous equals one day (16 or more hours in a 24-hour period) of direct service.

The Benchmark Rate for this service is equal to \$571.04 (\$35.69/hr * 16 hours)

MEMORANDUM

FROM: Peter Burns, EP&P Consulting, Inc.
Ilya Zeldin, EP&P Consulting, Inc.

TO: Ed Rapaport, DDD
Antonia Valladares, DDD

DATE: August 25, 2003, Revised from October 1, 2002

RE: *Use of Modifiers in Rate Setting Models*

This memo addresses the use of modifiers throughout the various rate models, where each rate model was created for a respective service code. A modifier is a factor, or assumption, that may be adjusted based on a type or number of criteria affecting such assumption. The first section of this memo refers to the nine modifiers that are currently used in various models. The second section addresses the use of additional modifiers that may be used to further differentiate the rates.

Currently Used Modifiers

In an effort to both properly reflect the different types of services offered by the Division to its population and, at the same time, eliminate complexities on the Division's systems and service tracking, EP&P Consulting limited its use of modifiers to the following eight types:

1. For Habilitation, Group Home (HAB) and Habilitation, Community Protection and Treatment Group Home (HPD), a matrix of authorized staff hours was developed that allow different number of FTE, depending on the size of the facility and needs of individuals in the facility.
2. For Day Treatment and Training services, the *per consumer per program hour* rate is based on the ratio of total direct care service staff hours with consumers present at the program to total consumer hours.
3. For Day Treatment and Training, Adult (DTA), a Rural Day Treatment and Training, Adult rate was developed for agency providers. Among other differences, while the standard DTA model is based on 16 consumers in the Day Treatment center, the Rural DTA model is based on 6 consumers. This code is only to be used when the potential client base of the program size has fewer than 20 consumers in a 40 mile radius.
4. Room and Board, All Group Homes uses a modifier for different districts throughout the state that reflects the discrepancy among the Fair Market Rents throughout the different districts. Districts 1, 2 and 3 refer to specific MSAs as used by the U.S. Department of Housing and Urban Development (HUD).

5. "Capacity" and "Actual Occupancy" modifiers were used in the Room and Board, All Group Homes rates. Within each district, Room and Board rates vary by the capacity and number of consumers in the Group Home.
6. A multiple clients modifier was used to establish a *per client* rate in situations when the same service is provided to more than one client at the same time and within the same setting. This multi-client modifier was used primarily with rate setting for In-Home Services, and the formula for multi-client modifier is as follows: $(\text{Regular Rate} * ((1 + (25\% * \text{number of additional clients}))) / \text{Total number of clients}$.

For example, the rate for Attendant Care agency provider was set at \$14.15 per client hour. Using the multi-client modifier formula, the *per person per client hour* rate was set at \$8.84 for two clients and one service provider, and \$7.07 for three clients and one service provider.

7. Nutritional supplements. Current models rely, where applicable, on the Moderate-Cost Food Plan cost tables published by the U.S. Department of Agriculture for assumptions on food/meal expense. The Division, however, will also make available an additional nutritional supplement modifier for consumers in group home and developmental home settings. This modifier will be approved by the Division on a case-by-case basis, and providers will be paid for these expenses in addition to the *per diem* rate and only for those consumers that require them.
8. Incontinent Supplies. Current rate models do not account for additional expense associated with undergarments. The Division, however, will make available an additional incontinent supplies modifier for consumers in group home and developmental home settings. This modifier will be approved by the Division on a case-by-case basis, and providers will be paid for these expenses in addition to the *per diem* rate and only for those consumers that require them.

Additional Options for Modifies

There is a wide range of additional modifiers available to further differentiate between the various services. Some of these modifiers include:

1. Intensity level modifiers. The Division is conducting the development and administration of the statewide individual consumer level of need assessment process. Upon completion in the Fall of 2003, the Division will release rates for the independent providers and adopt intensity level modifiers. These modifiers will apply only to independent (non-RFP) providers because it is assumed that agency providers have a broad pool of individuals and, on average, the costs associated with caring for high or low intensity individuals are balanced.

2. Wages. Current models include a wage component for services rendered for a particular service offered by the Division. The wage data used in the models reflects the Arizona statewide average wages posted by the Bureau of Labor Statistics (BLS). In addition to the statewide wages, however, BLS also reports wages by Arizona Metropolitan Statistical Areas (MSAs). Table 2 of the attached *Occupational Categories Used in Rate Setting Models* exhibit illustrates the variance of hourly wages between Arizona MSAs and the statewide average for selected occupational categories used in the models. It is possible, therefore, to have an additional wage modifier.
3. Wage or allowance modifiers could also be applied for specific skills such as sign language, or additional training. This modifier would be applied to individual providers on the case-by-case basis. We have provided a template under separate cover that can be applied to any service code. Using this template, the Division will be able to adjust the wage or any other component of the model by either a dollar amount or a percent increase to derive to the appropriate rate that reflects the specific skills required for the situation.
4. Additional Fair Market Rent modifier. The Room and Board, All Group Homes modifiers described in the first section of this memo assumes a constant monthly rent expense for the entire district/MSA. It is possible, however, to further differentiate among specific areas within a given district. However, there are no readily available objective data sources that we identified that would allow this adjustment to be made.