DHS|OHA Caseload Forecasting Methodology

Office of Forecasting, Research and Analysis

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1. Overview

This publication provides a detailed review of the methodology used by the Office of Research, Analysis and Forecasting (OFRA) to produce semi-annual caseload forecasts for the Oregon Department of Human Services (DHS) and the Oregon Health Authority (OHA). Forecasts are produced each spring and fall for the current and upcoming biennium, and results are used primarily for budgeting and workload (staff) planning.

Typical forecast Timing over the course of a biennium

	ADVISORY COMMITTEE MEETINGS *Double box = legislature in session; (# mo.) = # months since last forecast cycle*	
	ODD YEARS	EVEN YEARS
January	-	-
February	Forecast Committee Mtgs (6 mo.)	-
March	-	Forecast Committee Mtgs (5 mo.)
April	-	-
May	-	-
June	~ Mid-Cycle Mtgs	~ Mid-cycle Mtgs
July	-	-
August	-	Forecast Committee Mtgs (5 mo.)
September	-	-
October	Forecast Committee Mtgs (8 mo.)	-
November	-	-
December	~ Mid-Cycle Mtgs	~ Mid-cycle Mtgs

How forecasts are used for Budgeting

	BUDGET DEVELOPMENT	**BUDGET EXECUTION**
Biennium used:	Upcoming Biennium	Current Biennium
FORECAST CYCLE *July 1st of Odd years >> New biennium begins and the "Upcoming biennium" becomes "Current biennium"*		
Odd Years – Fall forecast	Used to create the Base Current Service Level budget	Refine/adjust budget for remaining biennium ~19 months Typically used for January financial update prior to the short February Legislative Session
Even Years – Spring forecast	Used to create the Current Service Level (CSL) budget which is used as the basis for the Agency Request Budget (ARB)	Refine/adjust budget for remaining biennium ~14 months Summer financial update if there are big changes
Even Years – Fall forecast	Used to guide adjustments to the Governor's Request Budget (GRB) & to inform the Legislature	Refine/adjust budget for remaining biennium ~8 months November/December rebalance
Odd Years – Spring forecast	Used to guide adjustments in the Legislatively Adopted Budget (LAB)	Refine/adjust budget for remaining biennium ~3 months April/May rebalance – last adj. of the mgmt cycle
	Revisions during Budget Development are called "reshoot"	*Revisions during Budget Execution are called "rebalance"*

Forecasted program areas

DHS	Aging and People with Disabilities
	Child Welfare
	Intellectual and Developmental Disabilities
	Self-Sufficiency
	Vocational Rehabilitation
OHA	Medical Assistance Programs
	Mental Health

Forecasting techniques

Forecasts are developed using a combination of time-series techniques, input-output deterministic models, and expert consensus. Forecast quality is tracked using monthly and annual reports that compare actual caseload counts to the forecasted caseload.

Most of the statewide caseload forecasts are produced using custom software created by Looking Glass Analytics (LGAN).[1] The LGAN model is based on the statistical technique of *survival probability* and the concept that clients start service in a given program by virtue of being a new client or by transitioning from another service. The model simulates the movement of clients or client groups such as families or households in and out of services. Key concepts in the LGAN model include:

- ***Intakes:*** Clients that start a service in a given month; these can be first-time clients, repeat clients, or clients that have transitioned directly from another service.
- ***Carry-forward:*** Clients that continue service from one month to the next; that is, they *survive* the previous month of service.
- ***Exits:*** Clients that do not continue service from one month to the next; that is, they *do not survive* the previous month of service. Clients can exit by leaving all services or by transitioning among service categories.

Computation of a caseload population for a given month is based on client intakes and clients carried forward. For example:

February population = *Clients carried forward* from January + *Client intakes* for February

Therefore the caseload forecast itself is a series of simple calculations for each month in the forecast horizon. An accurate caseload forecast is based on an accurate forecast of new intakes, length of time on caseload, and the patterns of client transition out of a given service. In short, forecaster efforts are centered on the questions ‘how many will come,’ ‘how long will they stay,’ and ‘where will they go when they leave?’ This methodology review focuses on how forecasters and advisory committees go about answering these questions.

Each forecast is developed with the help of an advisory committee and most forecast areas have information from external stakeholders which is collected through a variety of methods (Section 13). The forecast advisory committees are tasked with helping to set forecast assumptions in an objective manner.

[1] LGAN model documentation is available on request.

2. Data Sources and Software

These data sources are used in the forecasts:

- DHS/OHA Integrated Client Services (ICS) data warehouse
- Aging and People with Disabilities Data Warehouse
- Oregon Employment Department historical data of Oregon employment by industry
- Office of Economic Analysis (OEA) forecast of Oregon employment by industry
- Portland State University Center for Population Research Oregon historical population by age
- U.S. Census Bureau Oregon historical population by age
- OEA Oregon population forecast by age

The ICS data warehouse is the major source of data used to forecast client caseloads. Historical data begin on January 1, 2000 and are updated each month. The data set contains information on individual clients and the spans of DHS/OHA service they received. ICS contains de-identified data and assigns each client a *master ID* that is constant across all programs and services. The ICS data elements most critical for forecasting are:

- Master ID
- Type of service
- Service begin and end date
- Client characteristics of birthdate, sex, age, and race
- Case ID where applicable (allows clients to be grouped into households or families)
- Branch where service is administered
- Location of client across various geographies including county, census block, etc.

Several software packages are used for producing and tracking forecasts. They are listed below along with their primary uses in the forecasting process.

- SAS – necessary for LGAN model (see Section 3); also can be used to pull data from the ICS
- MS Access – necessary for LGAN model
- MS Excel – supports forecast assumption setting and tracking
- SPSS – repository for historical caseload data; TRENDS component can be used for intake forecasts
- TOAD – can be used to pull data from the ICS (alternative to SAS for this purpose)

3. Using the LGAN Model

The LGAN model uses SAS software to produce output in MS Access tables. The forecaster loads a file of historical client-service data into the model and chooses time on caseload and transition patterns and develops an intake forecast. A caseload forecast is generated. This preliminary forecast can be modified by changing any of these assumptions: future intakes, time on caseload (TOC), and transition rates. LGAN requires that clients within a forecast receive service in one program at a time. Data that reflect overlapping service spans must be ‘cleaned’ before they are loaded into LGAN.

The historical data elements needed to generate a forecast are:

- Unique client ID
- Program name (programs must be mutually exclusive)
- Service start date
- Service end date
- Date of birth (optional)

The data elements are loaded into a SAS file, and the LGAN user interface allows the forecaster to choose forecast parameters:

- Time on caseload (TOC): the forecaster can choose from among 30 different TOC (or survival) patterns for each forecast group. These are based on historical patterns present in the data. A survival pattern can also be developed outside of the model and imported into the forecast. Several TOC patterns can be chosen for each forecast group. For example, exits from the SNAP and TANF programs are seasonal, increasing in the summer and declining in the winter. By alternating relatively longer or shorter TOC patterns, these seasonal exit patterns can be reflected in the forecasts.

- Transition patterns: for clients that do not carry over to the next month, the forecaster must choose whether they transition to another subprogram (for example, one medical program to another medical program) or leave service altogether. The forecaster can choose whether or not the transition pattern will be seasonal and on how many years of history it will be based. History can be completely ignored and forecast transition patterns can be custom made by the user. Whatever pattern is chosen, it continues for each month of the forecast. If the forecaster anticipates a change in the pattern, a pattern that incorporates change over time can be developed outside of LGAN and imported into the forecast.

- Intake forecast: intakes that result from a transition from another program are developed in the previous step. Intakes that are completely new or returning to the program after a break in service are forecast in this step. LGAN provides an interface with SAS Econometric and Time Series (ETS) analysis software for this purpose. The user can choose the default intake forecast produced by ETS, actively produce an alternative forecast with or without using exogenous variables, or create a forecast outside of the model and overwrite the SAS ETS results.

When these parameters have been changed, the forecast is recalculated. These steps can be repeated until a valid and reliable forecast is achieved.

4. Using Time Series Models

A time series is a chronological sequence of observations about a variable of interest (caseload). Observations are collected at regular intervals (monthly) to create the historical basis from which the forecast is generated. Time series analysis involves building a model based on historical data and using statistical techniques to forecast future values. Time series offers a wide variety of statistical forecasting techniques that can be applied to create a forecast. Techniques range from simple smoothing and moving averages to a complex ARIMA (Auto-Regressive Moving Average) for seasonal and non-seasonal caseload data.

5. Self Sufficiency Programs Forecast Detail

The Self Sufficiency Program (SSP) forecast includes the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), Employment Related Daycare (ERDC), Temporary Assistance for Domestic Violence Survivors (TA-DVS) and Mandatory JOBS clients[2]. These programs are not mutually exclusive. For example, TANF clients also qualify for SNAP benefits. The LGAN forecasting software does not allow overlapping service spans, so separate

[2] For definitions of these and any other programs listed in this document, see Appendix III.

forecasts are created for each of the five SSP groups. *Households* are forecast for SNAP and *clients* are forecast for JOBS. All other SSP groups are forecast in terms of *families*.

A. SNAP and TANF

The SNAP and TANF caseloads are highly sensitive and move counter-cyclically to the business cycle, especially employment levels. These caseloads are generally quick to increase at the onset of a recession and slow to decline in a recovery. At the start of a recession intakes will increase, and this will be followed by an increase in the time on caseload (TOC). This is because clients tend to have work history or current employment in sectors that are sensitive to consumer sentiment and discretionary income: retail trade, leisure and hospitality, and personal/business services. Intakes, transitions, and TOC for both TANF and SNAP are forecast using the same techniques. SNAP is used as the example here.

- Overview: The SNAP caseload consists of clients that access benefits through SSP those who access benefits through Aging and Persons with Disabilities (APD) programs. These subcategories are mutually exclusive. Time on caseload for the SSP portion tends to increase during recessionary periods and decrease during economic expansions. In addition, SSP exits exhibit seasonal patterns as well. They tend to increase in the spring and summer and decrease in the fall and winter.

- OEA forecasts quarterly employment and annual population. From these data, OFRA estimates quarterly population and calculates a nonfarm employment index which is quarterly employment per 100,000 population aged 18 to 64. The index is used as an independent variable to forecast SSP SNAP intakes. The intake forecast model structure is a simple auto-regressive iterated moving average (ARIMA) time series forecast. The model specification can vary slightly forecast to forecast, but it is evaluated using the Box-Jenkins method.[3] The forecast returns a quarterly forecast of SNAP intakes which are then disaggregated into monthly observations using typical seasonal patterns. This is the base intake forecast which is pasted into the LGAN model. The final intake forecast is often adjusted in consultation with the Self-sufficiency Forecast Advisory Committee.

- SSP SNAP exits are seasonal. Two TOC patterns are chosen for each forecast year. The patterns are selected to reflect seasonal fluctuations within long-term trends that are brought about by an improving or deteriorating job market. Even during periods of high unemployment or rapid job growth, SSP SNAP exits reflect some degree of seasonality.

- SNAP clients can transition from one sub-group to another. The most common type of transition is from SSP SNAP to APD SNAP, usually as a result of turning 60 years of age. The transition pattern is not seasonal, and it is normally the pattern typical of the last six months to one year.

B. TA-DVS and Pre-SSI

These programs are not measurably influenced by Oregon's economy. There are no sub-programs and therefore no transitions.

- TA-DVS clients usually receive service for one month. Intakes and the caseload exhibit a stable seasonal pattern with a summer peak and winter trough. Intakes are forecast using the simple seasonal form of the exponential smoothing model within SAS/ETS.

[3] Enders, Walter. *Applied Economic Time-Series.* (New York: John Wiley & Sons) 2004, pp. 76-79.

- Pre-SSI intakes are based on typical practice during the last six months to year. TOC is based on the experience of intake cohorts during the last two to three years.

C. ERDC

The ERDC caseload is composed of *TANF Transition* clients who have recent history of TANF receipt and all others who meet eligibility. There are no transitions between these subgroups as the distinction is made at the time the ERDC service starts. Under normal circumstances this program would be influenced by the number of families exiting TANF. At present it is indirectly influenced by the economy by way of budget reductions. This program is capped at an average of 8,500 clients through the end of the 2011-13 biennium. TOC is based on the experience of intake cohorts during the last two to three years. Given the TOC pattern, intakes are determined through trial and error and in consultation with program staff in order to attain the budgeted caseload.

Budget reductions are not assumed for the 2013-15 biennium. When not capped, ERDC intakes are highly seasonal with autumn peaks and winter troughs. The intake forecast is based on the seasonal pattern that existed in the two years prior to the first major reduction (October 2008-September 2010). This seasonal pattern is repeated over the biennium.

D. Mandatory JOBS clients

Mandatory JOBS client data are available as a series of monthly counts dating to July 2005. Clients consist of a large subset of parents receiving TANF, and historical trends in the TANF and JOBS caseloads are quite similar. Therefore, the JOBS forecast is created using a time-series model with the TANF caseload forecast as an independent variable. The model structure is a simple ARIMA specification. The structure can vary slightly forecast to forecast, but it is evaluated using the Box-Jenkins method.

6. Child Welfare Programs Forecast Detail

This program consists of four broad subgroups: adoption assistance, guardianship assistance, foster and residential (out of home) care, and child in home. The sum of these groups is the total *number served* during a month by the Child Welfare. Children can receive multiple services in a given month, often at the same time. To avoid counting the same child twice during a month, the subgroups are prioritized. If children receive services from multiple subgroups during a month, they are counted in the subgroup with the highest priority. The prioritization is as follows (highest to lowest):

- Adoption assistance
- Guardianship assistance
- Residential care
- Paid foster care
- Nonpaid foster care
- CPS reunited child in home
- CPS protected child in home
- Independent living
- CPS assessments
- Developmentally disabled foster care

Another component of service, Family support services, has not been constructed for ICS. These are children that are being aided in home much like CPS in home, but they are not part of a CPS case. This portion is under construction and should be incorporated during 2014.

Intakes to most subgroups entail a transition from another subgroup. Children 'enter' the system either as part of an assessment, a CPS case, or foster care. For new eligible, the intake forecast is based on the 'commitment rate' per overall Oregon population within child age groups. Usually the latest year's rate is used and applied to the overall population forecast for children in the particular age group. These are summed and provide a forecast of total annual new eligible. New intakes for groups with sufficient histories and large enough caseloads are distributed seasonally using calculated indices. Transition patterns are chosen within the LGAN model in order to reflect the most recent practice. This is usually the latest six months to one year.

Once the number served forecast is done, average daily population for some groups is forecast for use by DHS Budget. Currently, these are the categories forecast and used by budget:

- Paid adoption assistance
- Paid guardianship assistance
- Paid foster care
- Enhanced supervision foster care
- Personal Care (Foster Care)
- Foster Family Shelter Care
- Residential Treatment
- Special Contracts
- Target Placements

These counts are highly related to corresponding number served counts. Therefore, most of them are forecast using a time-series model with a number served caseload forecast as an independent variable. The model structure is a simple ARIMA specification. The structure can vary slightly forecast to forecast, but it is evaluated using the Box-Jenkins method. Paid adoption assistance is dependent upon the number served (NS) adoption assistance forecast, paid guardianship on guardianship assistance NS, and paid foster care on paid foster care NS. The combination of residential treatment, special contracts, and target placements are dependent on the residential care NS forecast. The components are separated using the typical distribution for the last six months or year. Enhanced supervision and personal care are forecast using an ARIMA specification with no independent variable. Foster family shelter care is the average of the last year.

Finally, many of the average daily population forecasts detailed above are included as inputs for the child welfare workload model. Additional average daily population forecasts are created for Developmentally Disabled foster care, Non-paid foster care, and the Independent living program.

7. Vocational Rehabilitation Programs Forecast Detail

This program consists of five subgroups: application, development, in-plan, post-employment services, and delayed status. The sum of these groups is the total number of clients served during a month by the Office of Vocational Rehabilitation Services (OVRS). Clients receive services in one subgroup at a time, but during a month they could receive services from several subgroups. To avoid counting the same client twice during a month, the subgroups are prioritized. If clients receive

services from multiple subgroups during a month, they are counted in the subgroup with the highest priority. The prioritization is as follows (highest to lowest):

- In plan
- Post-employment services
- Delayed status
- Plan development
- Application

OVRS clients tend to follow a progression through program services from application to plan development to being in plan. Some clients require post-employment services and others will exit the program after their rehabilitation plan is complete. Therefore intakes to most subgroups entail a transition from another subgroup. Transition patterns are chosen within the LGAN model in order to reflect the most recent practice. This is usually the latest six months to one year.

New and returning clients are usually counted in the application or plan development stages, although a small number appear in each subgroup during a given month. Total new and returning intakes are forecast using an ARIMA time series model. Model specification is evaluated using the Box-Jenkins technique. The forecast for all intakes is divided into various subgroups using the distribution typical of the last six months or year. The resulting intakes by subgroup constitute the base intake forecast which is pasted into the LGAN model. The final intake forecast is often adjusted in consultation with the Vocational Rehabilitation Forecast Advisory Committee.

8. Aging and People with Disabilities Programs Forecast Detail

The Aging and People with Disabilities (APD) caseload forecast has 16 service categories, including 12 Long-Term Care (LTC) categories which are grouped into three distinct service categories: Nursing Facilities, Community-Based Care, and In-Home Care. Caseload categories are forecast using the LGAN model described in Section 3 or time-series methods described in Section 4. Some of the smallest caseload categories include numbers that reflect system capacity rather than an actual forecast.

Data Source: APD LTC paid claims data from the APD DHS Datamart are used to generate LTC caseloads.

The following table shows the method used to generate forecasts for each service category:

Aging and People with Disabilities	LGAN Forecast Model	Time Series Model	System Capacity
LONG-TERM CARE			
NURSING FACILITY CARE			
Nursing Facility Care (with 2 sub-categories)	X		
Enhanced Care			X
Pediatric Care			X
COMMUNITY BASED CARE			
Assisted Living	X		
Adult Foster Care	X		
Residential Care - Regular	X		
Residential Care - Contract	X		
Program of All-Inclusive Care for the Elderly (PACE)		X	
IN-HOME CARE			
Total In-Home (with 6 sub-categories)	X		
Independent Choices			X
Specialized Living			X

To use the LGAN Model, clients can be counted in only one caseload category for any given month. Consequently, clients who move from one category of care to another during a month will be counted based on how they were being served on the last day of the month. In the event that a client has overlapping service spans on the last day of the month, a hierarchical order is employed to 'clean' the data for analysis. The prioritization is as follows (highest to lowest):

- Nursing Facility Care
- Adult Foster Care
- Contract Residential Care
- Regular Residential Care
- Assisted Living
- In-Home Care

The forecasts for total Nursing Facility Care and total In-Home Care are further divided into subcategories using a proportional distribution based on the most recent historical utilization of service types. Subsets include:

Nursing Facility Care	Basic	
	Complex Medical Add-on	
In-Home Care	Hourly	Without State Plan Personal Care
		With State Plan Personal Care
	Agency	Without State Plan Personal Care
		With State Plan Personal Care
	Live-in (**Closed October 2017**)	
	Spousal Pay	

The Program for All-Inclusive Care for the Elderly (PACE) caseload forecast is generated using the ARIMA time series modeler. The best forecast model is selected based on goodness-of-fit using a

variety of statistical fit measures (e.g. stationary R square, mean absolute percentage error, etc.) and residual autocorrelation and partial autocorrelation. Tests for seasonality in the data series are also performed to determine the use of seasonal time-series models. On occasion, when individual models produce unlikely results, two or more models may be combined to generate a hybrid model with improved accuracy.

Estimates for the following categories reflect specific capacity limitations and are not truly forecasts:

- Nursing Facility Care – Enhanced Care; Pediatric Care
- In-Home Care – Independent Choices; Specialized Living

9. Intellectual and Developmental Disability Programs Forecast Detail

Intellectual and Developmentally Disabled (I/DD) services fall into three broad categories: adult services, children services, and other ancillary services. Caseload categories are forecast using the LGAN model described in Section 3 or time-series methods described in Section 4. Some of the smallest caseload categories include numbers that reflect system capacity rather than an actual forecast.

Data Source: I/DD paid claims data in ICS is utilized to generate I/DD caseloads.

The following table shows the method used to generate forecasts for each service category:

Developmental Disabilities	LGAN Forecast Model	Time Series Model	System Capacity
Case Management Enrollment		X	
ADULT SERVICES			
24-Hour Residential Care	X		
I/DD Foster Care (Adults & Children)	X		
Supported Living	X		
Adult In-Home Support	X		
Stabilization and Crisis Unit (Adults & Children)			X
CHILD SERVICES			
In-Home Support for Children		X	
Children Intensive In-Home Services		X	
Children Residential Care			X
OTHER DD SERVICES			
Employment and Day Support Activities (DSA)		X	
Transportation		X	

To use the LGAN Model, clients can be counted in only one caseload category for any given month.

Before using the LGAN forecast model, overlapping service periods must be resolved. The four I/DD caseload categories: Adult In-Home Support, Foster Care, 24 Hours Residential Care and Supported Living are prepared for the model.

The hierarchical prioritization is used when I/DD service spans are overlapped. I/DD service spans are 'cleaned' based on a service priority scheme (1=highest priority, 4=lowest priority) as follows:

1= 24 Hours Residential Care
2= Foster Care
3= Supported Living
4= Adult In-Home Support

Adult In-Home Support caseload include Community Developmental Disability Programs (CDDP) In-Home services as well as Brokerage In-Home services without DSA, Employment and Transportation services.

Time series forecasts are used to forecast the following caseload categories:

- Case Management Enrollment
- Children Intensive In-Home Services
- In-Home Support for Children
- Employment and Day Support Activities
- Transportation

Case Management Enrollment caseload is forecasted using non-seasonal time-series models such as Linear Trend with Autoregressive Errors and exponential smoothing techniques.

Children Intensive In-Home Services caseload is composed of three major children waiver services: Intensive Behavior Program, Medically Involved Programs, and Medically Fragile Children Service. These three caseloads are individually forecasted using the non-seasonal time-series model and reported as the total caseload for the Children Intensive In-Home Services.

Employment and Day Support Activities caseload and Transportation caseloads are forecasted using seasonal time-series forecast model such as Winter's additive technique.

For a few caseload categories, additional subcategories are projected (based on historical proportions). Subcategories include:

- Case Management Enrollment – % Children; % adults
- Case Management Enrollment – % using (& not using) additional I/DD services
- I/DD Foster Care – % Children; % adults

Estimates for the following categories reflect specific capacity limitations and are not truly forecasts:

- Stabilization and Crisis Unit– % Children; % adults
- Children Residential Care

10. Medical Assistance Programs Forecast Detail

The Medical Assistance Programs (MAP) forecast is comprised of 13 client eligibility categories corresponding to various combinations of age, income, family structure, legal residency status and medical condition. The forecasting process develops assumptions about the number of new clients expected to enter each category, the amount of time clients are expected to remain, and the patterns of movement across eligibility categories as clients' characteristics change with time. The MAP

caseloads are further subject to changes in policy and procedure, new federal and state laws, general economic conditions, and Oregon demographics. Each of these factors, once identified and carefully examined, is incorporated into a monthly forecast of program caseloads extending one to two biennia into the future. All biennial caseload forecasts are subject to current law only. Proposed legislative changes and/or administrative changes under consideration are not reflected in the official forecast until passed or formally adopted.

The unique caseload categories which comprise the Medical Assistance Programs caseload forecast are as follows:

- Parent Caretaker Relative (PCR)
- ACA Adults with Children (AWC)
- ACA Adults without Children (AWOC)
- Pregnant Woman (PWO)
- Children's Medicaid (CMO)
- Children Health Insurance Program (CHIP)
- Foster, Substitute and Adoption Care (FSAC)
- Aid to the Blind and the Disabled (ABAD)
- Old Age Assistance (OAA)
- Citizen Alien Waived Emergent Medical (CAWEM) - Regular
- Citizen Alien Waived Emergent Medical (CAWEM) - Prenatal
- Qualified Medical Beneficiary (QMB)
- Breast and Cervical Cancer Program (BCCP)

Clients are transferred among the various categories as their eligibility determination dictates. In most cases client eligibility is re-determined on a 12 month basis.

There is no single methodology used in Medical Assistance Programs caseload forecasting efforts. Rather, an 'empirical' approach was chosen and is supported by a variety of 'methodologies' including, but not limited to, historical pattern analysis, time series estimation, the application of statistical techniques to available data, consensus-based assumption setting, and contextual (economic) and policy-driven change analysis.

The tools utilized in support of these methodological choices include the full range of statistical techniques, a base support computer model (LGAN) for historical trend analysis, review committees with both technical and substantive expertise, and continual monitoring of estimates as feedback to the setting of estimation parameters.

The full forecasting process begins with the generation of a 'baseline' resulting from the processing of 10 years of encounter-level data within the adopted 'components of change' model (LGAN). This 'baseline' output is exclusively focused on historical trends in the data and the assumption that the history of change for a particular program best represents change into the future. This assumption is more or less valid depending on the data characteristics of the particular eligibility group of interest. For eligibility groups where sufficient history is available, recent policy changes have not been implemented, future policy changes are not anticipated, and external systemic influences are minimized or consistent, the baseline estimates form a relatively valid and reliable set of future estimations. For eligibility groups where one or more of these conditions is not true, modifications to one or more of the components of change are required to generate a more rational set of future

estimations. Making these required changes constitutes ‘assumption’ development. The development of alternative assumptions is informed by the consensual advisory committee process.

The second phase of the forecast process begins with the presentation of ‘baseline’ findings to a defined MAP Forecast Advisory Committee which reviews each of the eligibility group forecasts, discusses the patterns leading to the estimations, and recommends for changes based on professional observation and knowledge of program influences from inside or outside the agency. Committee consensus is required to change any or all of the assumptive components leading to forecast change.

Following a short time interval during which the recommended committee changes are incorporated into the baseline forecast, a second and most often final, meeting is held with the Forecast Advisory Committee. It is at this meeting that all changes and outcomes are discussed and the final official forecast is adopted. On rare occasions additional changes may be made before the final forecast is adopted and provided to interested parties.

11. Mental Health Programs Forecast Detail

Five subgroups are forecasted to capture the population served by Mental Health Programs. Three subgroups are composed of mandated caseloads. These are Aid and Assist, Guilty Except for Insanity, and Civil Commitment. These forecasts capture clients who are criminally or civilly committed. The sum of these three subgroups is the total Mandated population. That is, the state is required to provide services to these clients. The other two subgroups are Never Committed and Previously Committed.

Within a particular month clients may be served in more than one subgroup. In order to utilize the components of change forecasting model developed by Looking Glass Analytics (LGAN), a categorical hierarchy is imposed so that a person will only be counted in one forecast group each month. The prioritization is as follows (highest to lowest):

- Aid and Assist
- Guilty Except for Insanity
- Civil Commitment
- Previously Committed
- Never Committed

The sum of these five subgroups is the total number of clients served during a month by Mental Health Programs. The Never Committed subgroup serves the largest number of clients and is several orders of magnitude larger than the other four subgroups. This caseload is more likely to be influenced by health insurance coverage than the other groups, especially compared to the Mandated population. The first three months of 2014 saw a steep climb in the Never Committed category, corresponding with implementation of the Federal Affordable Care Act.

Service categories, including Acute Care Hospitals, the Oregon State Hospital, Residential Care, and Non-Residential Care, are no longer forecast. These categories provide information on utilization of services and can be a reflection of capacity rather than demand for services. We provide actual

monthly counts for these services within each forecasted subgroup. These data are available with a four month lag.

12. Regional Forecast Detail

The Regional Forecast is designed to increase the Statewide Forecast's use as a tool for regional and local policy decisions. By developing a regional focus on caseloads and causal factors, we hope to be able to support a wide range of local and community partners as they, in turn, support the diverse needs of Oregonians.

Based on feedback from the applicable forecast advisory committees the Regional Forecast was modified starting in Spring 2012. The regional forecast now includes projections for each DHS district, as well as each county within the district. In the past, only district totals were presented. The medical caseload categories were also modified to make them more complete and detailed.

The result is a forecast for all 36 Oregon counties for three program areas and 14 caseload categories. The categories included are:

- DHS Self Sufficiency Programs – SNAP Self Sufficiency, SNAP Aging and People with Disabilities, and TANF;
- DHS Aging and People with Disabilities Programs – Nursing Facilities, Community-Based Care, and In-Home Care; and
- OHA Medical Assistance Programs – TANF-Related Medical, Poverty-Level Medical Women (PLM-W), Poverty-Level Medical Children (PLM-C), Children's Health Insurance Program (CHIP), Foster Care/Adoption, Aid to Blind and Disabled (ABAD), Old Age Assistance (OAA), and ACA Adults.

Additional analyses are conducted that are not included in the forecast publication, but are used by budget for planning purposes. These include a caseload forecast for the Breast and Cervical Cancer Program and a breakdown of caseloads into Coordinated Care Organization boundary areas.

Care must be taken in the interpretation of some of the regional forecast's results. Because county-values are now presented, small numerical values are being forecast and published. As the number of cases in a caseload shrinks, the possibility of forecasting error grows. In general, these forecasts are designed to illustrate the general magnitude of caseloads and trends for each county. They are not intended to be precise numerical targets, especially for small caseloads in counties with small populations where a very small change in the number of clients can make the percentage change look extreme.

<u>Methods</u>

Each forecast is developed using time series models. However, different methods are used for different programs based on goodness-of-fit. For all counties and all programs, ARIMA models are developed first. The ARIMA model is accepted based on the results of the Ljung-Box Q statistic, stationary R-squared values, and mean absolute percent error associated with the model (and in comparison with other configurations). Often, autocorrelations and partial autocorrelations are developed to determine a best model, especially to determine appropriate seasonality. When an acceptable solution using ARIMA statistics does not present itself, "regression based" time series

models such as “simple seasonal” models or Winter’s Additive models are used. This is most common for small counties, whose caseload variations have little or no discernible pattern.

When an ARIMA model is used for forecasting, the Statewide Forecast is used as an independent (a.k.a. exogenous) variable in the model. This controls for the inability of local time series models to detect the variation caused by the recession and recovery, or expected changes in entry or exit patterns based on programmatic changes. However, it also means that counties that do not comport to the statewide trend will be distorted to match the expected statewide pattern. As patterns at the county level become more well understood, forecasting these counties will become more accurate.

A general goodness-of-fit is determined for each program’s forecast by combining the sum of all county values and comparing the result to the official Statewide Forecast. Generally, if the Regional Forecast is within 5 percent of the Statewide Forecast, it is accepted as valid. There will be some inherent error as regional values used for the analysis will never total the exact amount of the statewide historic values. In addition, statewide forecasts use different forecast methods not available to the regional forecasts.

To avoid internal discrepancies between the statewide forecasts and the regional forecast, each forecasted value is converted into a proportion, and that proportion is applied to the statewide forecast. Therefore, the sum of the county values for any given month will total that month’s statewide forecast as provided by the program forecaster. Thus, the critical information from the regional forecast becomes the forecast direction of caseload change and the magnitude of change in comparison to the state as a whole.

Data from multiple sources are used in order to interpret the forecast for each county and provide basic demographic information. Information was included from:

- The U.S. Census Bureau, “Small Area Health Insurance Estimates (SAHIE).” Release Date, March, 2014.
- The U.S. Census Bureau, “American Community Survey” 1 year (2012) estimates, 3 year (2010-2012) estimates, and 5 year (2008-2012) estimates.
- The Oregon Employment Department’s “Oregon Labor Market Information System,” “Current Employment Statistics” and “Labor Force and Unemployment by Area” data, April, 2014;
- The Portland State University Population Research Center, “Estimates of Population Age Groups for Oregon and Its Counties,” July 1, 2013;
- Oregon Economic and Revenue Forecast, March, 2014, Volume XXXIV, No.1.

13. Stakeholder Surveys

Stakeholder input is solicited periodically to provide supplemental contextual information for the forecasters and advisory committees. These surveys provide business partners and subject matter experts not on the advisory committee with a channel for having input and feeling heard. The results are organized, summarized, and shared with the applicable forecast advisory committees.

The methods used and information solicited is adjusted periodically to encourage participation and ensure that the information collected is appropriate and timely. Several methods (described below) have been used in recent years:

- Phone and email interviews
- Web based surveys
- Delphi method (expert panel)

Recession Impact Surveys – 2008 to 2011, and 2013

Background and Purpose

DHS Executives asked the forecasting unit to conduct a study of Oregon's community safety net services following the onset of Great Recession in 2008. The objective was to connect with experts throughout Oregon's safety net organizations. The study gathered experts' observations at 6-month intervals about:

- Demand for safety net services
- Shifting consumer demographics
- Ability to keep pace with demand
- Economic factors influencing safety net budgets
- Referrals to DHS services
- Expectations of the above conditions extending 6 months to one year into the future (qualitative forecast)

Sample

Respondents included subject matter experts from Self-Sufficiency Programs, Child Welfare, Vocational Rehabilitation, Aging and People with Disabilities, Developmental Disabilities, Medical Assistance Programs, and Addictions and Mental Health.

Respondents in 2008 were identified by DHS executives, including Administrators for the medical programs. Forecast analysts used participant referrals to identify more potential respondents, continuing to add participants until the sample included representatives from every type of safety net service and every region of Oregon.

Respondents in 2009 – 2010 were carried over from the 2008 – 2009 samples. Program staff in each of these areas identified additional subject matter experts for the sampling frame. Forecasting analysts selected a stratified random sample from this list to reflect the range of services in each region of Oregon.

The Stakeholder Survey was replaced by a Delphi study methodology in 2011 and 2012, but was reintroduced in 2013 because it is thought that this method provides more insight into regional differences within the statewide numbers.

Methods

Over the years, a variety of methods have been used including phone, email interviews, and web surveys.

The interview guides and questionnaires used a mixed methods approach – a combination of both qualitative and quantitative questions and indicators. A team of forecast analysts analyzed the data. The 2008 pilot study relied heavily on exploratory qualitative methods. The 2009 – 2010 methods

used the pilot analysis to collect quantifiable data from a larger sample of experts using questionnaires.

Data was collected to coincide with the time period of the caseload actuals used in the mathematical forecast. Findings from the surveys were presented to the forecasters and forecast advisory committees during the forecast development process. They used the information to provide context, interpret and validate the caseload forecasts.

Delphi Study – 2011 to 2012.

Background and Purpose

As the Great Recession began to show signs of improvement, subject matter experts suggested a change in focus and frequency – from recession effects to recovery and policy changes; from semi-annual to annual or biennial.

A Delphi (expert panel) method was selected to:

- Identify issues that affect the DHS and OHA caseloads
- Take a baseline measure of how these issues affect the caseload
- Create a qualitative projection of how those issues might affect the caseload over the next four year period.

The first Delphi study for the DHS and OHA caseload forecast was conducted in 2011, with an additional round conducted in 2012.

Sample

In Phase I, about 70 respondents are selected (ten experts for each caseload area). Each respondent was assigned to a specific caseload area based on their nomination by the applicable forecast advisory committee (SSP, CW, APD, DD, MAP, KidsConnect, and AMH). The number or respondents dropped slightly with each successive round.

Methods

The Delphi studies were conducted using three rounds of questionnaires.

- The first round generated a list of items that could impact caseloads (brainstorming)
- The second round assessed the likelihood or priority of items identified during the 1st round
- The third round presented the group's full range of responses and comments and allowed participants to revise their responses or support their original position.

Sample recruitment was conducted using telephone interviews. All three questionnaires (Phase I – III) were administered online using email and Inquisite software. While the experts themselves were not anonymous (the advisory committees knows who participated), their responses cannot be connected to any one individual.

In Phase I, data was collected in a narrative format. A forecast analyst used this data to create a master list of items which served as the basis for the Phase II questionnaire.

In Phase II, respondents were asked to review the ideas generated in Phase I and to identify how the item will affect caseload intakes/exits, which biennium the issue will occur, how confident the

respondent is of their answer, and additional comments. Responses from Phase II were compiled into a report which was used in Phase III.

In Phase III, respondents were asked to review the Phase II responses from other panel members. Respondents were then asked to confirm or change their individual answers based on the ideas expressed by other participants. Responses from Phase III were compiled into a final report (one for each caseload area) which was presented to, and discussed by, the applicable forecast advisory committee during the forecast development process.

Appendix I
CASELOAD FORECAST ADVISORY COMMITTEE CHARTER

Background

The Office of Forecasting, Research and Analysis (OFRA) provides independent, objective, transparent caseload forecasts for the Department of Human Services (DHS) and the Oregon Health Authority (OHA). When HB 2009 created the twin agencies of DHS and OHA, OFRA was designated a shared service supporting both agencies. As a shared service unit, OFRA's responsibilities are documented in a Service Level Agreement posted on the forecasting unit's internet website.

OFRA develops caseload forecasts for all major DHS|OHA entitlement programs. Since every program area has unique issues, OFRA has the following Caseload Forecast Advisory Committees:

OHA
- Medical Assistance Programs (MAP)
- Mental Health – Mandated (MH)

DHS
- Aging and People with Disabilities (APD)
- Child Welfare (CW)
- Developmental Disabilities (DD)
- Self-Sufficiency (SS)
- Vocational Rehabilitation (VR)

Purpose

Each major caseload area has a separate Caseload Forecast Advisory Committee which provides critical program information and serves to review and advise on the forecast developed by OFRA.

The committee structure ensures the following objectives are met:

a) The forecast development, review and approval process is independent, objective, and transparent.
b) Forecasters are informed of currently enacted policy, program, and process changes (descriptive and numerical) that have the potential to affect caseload count and forecasts.
c) Forecasters are informed of program-level information (descriptive and numerical) that may affect the caseload context.
d) Program, policy, budget and management experts review the caseload forecasts.
e) Program, policy, budget and management experts review semiannual forecast parameters, and recommend adjustments, risks, and alternative approaches.
f) The advisory committees recommend and review other information relevant to the caseload forecasting processes such as program information, maintenance of program data, stakeholder input, exogenous data sources, etc.

Authority

The Caseload Forecast Advisory Committees are chartered and sponsored by the DHS|OHA Joint Operations Steering Committee (JOSC) to work with OFRA to advise on, or make recommendations concerning, caseload forecast decisions.

Membership

Each Caseload Forecast Advisory Committee will include:

a) Internal subject matter experts – representatives from the program areas including design and delivery appointed by the program director of the applicable caseload area.
b) External subject matter experts – representatives from the public or from academic, non-profit, and/or private sectors with specific knowledge of the applicable program area.

c) Representatives from finance, including the applicable budget administrator and budget analysts appointed by the budget administrator.
d) Representatives from the Department of Administrative Services CFO's Office and Legislative Fiscal Office who are assigned to monitor the program area.

Representatives from OFRA, including the unit administrator and lead forecaster for the program area will attend. OFRA's other forecasters, analysts, and technical staff may also attend.

Other agency staff with an interest in the program area (e.g. research staff, workload planning) may be invited to attend, but will not be expected to meet the expectations listed under "Responsibilities of Members".

Roles

Each Caseload Forecast Advisory Committee shall:

- Review the forecast materials prepared by OFRA staff.
- Discuss the pertinent internal and external factors affecting caseloads.
- Advise OFRA about program areas being forecast, as well as new areas requiring a forecast.
- Provide expert information relevant to the forecasting process.
- Make recommendations to OFRA about the official semiannual caseload forecast.

Scope

The scope of the Caseload Forecast Advisory Committees:

- Includes production of the semiannual caseload forecast for the respective program area.
- Excludes production of legislation, fiscal data, creating or leading program/policy evaluation.

Principles

The following principles guide the Caseload Forecast Advisory Committees:

- The caseload forecasting process is objective, transparent, & independent of political influence.
- Decisions are supported by data.
- Active participation and candid discussion is expected from all committee members.
- Commitment to work together across agencies, divisions, and programs.
- Commitment to engage with DHS and OHA partners for improved performance.
- Innovation and continuous improvement principles/tools are applied in the forecasting process.
- Service excellence and accountability is a standard for performance.

Relationship with Other Bodies

The Caseload Forecast Advisory Committees routinely interact with several other DHS|OHA governance bodies. Routine interactions include:

- DHS|OHA Budget Administration - These units use the results of the final caseload forecast to develop and manage the agency budgets.
- DHS|OHA Cabinets – The DHS|OHA Cabinets are responsible for overall governance of both agencies and routinely request information from the forecast advisory committees, and use the results of the final caseload forecast for program development, delivery and analysis.
- Joint Operations Steering Committee (JOSC) – The OFRA unit operates under the authority of JOSC to deliver work specified within the OFRA service level agreement and this Charter.

Responsibilities of Members

Expectations of Committee Members: ***Attendance and active participation is essential***

FORECAST INPUT

a) Attend advisory committee meetings or send a knowledgeable representative empowered to exercise the authority of the member.
b) Participate in candid discussions about the forecast and programs, including asking and answering probing questions from other committee members.
c) Maintain an objective perspective on the forecast process in order to ensure integrity and objectivity of the forecast.
d) Advise OFRA about program areas being forecast, as well as new areas requiring a forecast.
e) Identify policy, program and environmental factors that are likely to affect the caseload.

f) Provide OFRA with information &/or feedback about:
   - Currently enacted policy, program, and process changes that might affect caseload count
   - Program-level information (numerical and descriptive) that might affect caseload context
   - Other information relevant to maintenance, program information, exogenous data sources, etc

g) Assess forecast assumptions for their policy relevance and reasonableness.

h) Provide expert review of forecast parameters, including recommended adjustments, risks, and alternative approaches.

OTHER

i) Keep OFRA informed on staffing/org changes that might affect committee membership.

j) Communicate with forecasting on a regular basis outside committee meetings to ensure forecasters understand what is happening in the program area.

k) Provide feedback on OFRA's work product, processes, and performance.

l) Provide resources within their authority to develop recommendations under the scope of this Charter.

Expectations of OFRA Program Forecasters:

a) For the current and subsequent biennia, develop month-to-month forecasts for review and discussion with the forecast advisory committee.

b) Develop mathematical models used to complete preliminary, adjusted, and final forecasts.

c) Analyze and integrate internal and external factors affecting caseloads.

d) Verify/evaluate empirical evidence used to support assumptions.

e) Provide backup materials and document explanations, assumptions, risks, etc.

f) Meet with the Forecast Advisory Committee at least once each forecast cycle to discuss the forecast and to obtain, discuss, and consider input of committee members.

g) Establish a "final" forecast; provide a copy to advisory committee members and invitees; provide applicable monthly detail to DHS|OHA budget staff.

Expectations of OFRA Unit:

a) Develop and maintain the Integrated Client Services Data Warehouse (ICS).

b) Engage stakeholders for input, quality review, and feedback.

c) Forecasting products – publish, distribute and post to the internet
   - DHS|OHA Caseload Forecast Overview Tables (asap after forecasts are "finalized")
   - A statewide forecast publication describing the programs, forecasts, assumptions, risks, etc.
   - A regional forecast by county and DHS|OHA service district for selected categories

d) Administrative info – publish, distribute and post to the internet
   - Annual forecast schedule in calendar form
   - Information about governance, forecasting processes, advisory committee membership, etc.
   - Forecast accuracy reports, including: monthly caseload variance reports, quarterly business scorecard, and an annual accuracy tracking report

Recommendations

Each Caseload Forecast Advisory Committee shall advise the relevant OFRA forecaster about the caseload forecast. The official semi-annual caseload forecast will not be finalized unless the forecast advisory committee has had a chance to review and comment on the specific recommended forecast.

In most cases, OFRA will use the final forecast discussed at the semi-annual caseload advisory committee meetings as the official forecast. Occasionally additional adjustments may need to be considered after the final committee meeting. When that occurs, the forecaster will notify all advisory committee members about the proposed change, providing a full explanation and giving committee members a chance to comment. This communication may be in-person, by phone, or via email. Following that exchange, the forecaster will make the final decision and communicate the results to all advisory committee members in writing.

Meetings

The Caseload Forecast Advisory Committees will meet periodically throughout the year:

- Twice each year, in the Spring and Fall, each advisory committee shall meet to review and discuss caseload forecasts prepared by the applicable forecaster. Most committees will meet twice each forecast cycle. Occasionally, the forecast may be resolved in a single meeting, or have additional issues that are not resolved until after the second meeting.
- Between forecast cycles, each advisory committee will usually meet once to review caseload trends, and to discuss policy and program changes, miscellaneous information, administrative matters, process improvement ideas, etc.
- Subcommittees and temporary workgroups may meet as needed.
- Members of the advisory committees may exchange electronic communication as needed.
- Additional meetings may be held throughout the year at the request of DHS|OHA executives or the Oregon Legislature.

Meeting Support

The Office of Forecasting, Research and Analysis will:

- Schedule meetings and facilities.
- Provide equipment for the meetings, including electronics.
- Prepare and distribute a meeting agenda in advance of meetings.
- Provide committee members with materials for review via email or hard copy. Committee members may be asked to print their own materials from electronic copies distributed prior to meetings.
- Maintain records that track recommendations and action items from the committee meetings.

Changes to the Charter

Changes may be made to the Charter based on recommendations from OFRA, the committees, or JOSC. OFRA staff shall review this charter with the forecast advisory committees at least biennially, and if warranted, update this charter.

Original approval by JOSC: 03/29/12
Latest revision: 12/15/13

CASELOAD FORECAST ADVISORY COMMITTEE MEMBERSHIP
DHS PROGRAM COMMITTEES

AGING AND PEOPLE WITH DISABILITIES

Mike McCormick	Program	DHS	APD Director
Trisha Baxter	Program	DHS	COO APD & DD Services
Sarah Hout	Program	DHS	Money Follows the Person Director
Jane-Ellen Weidanz	Program	DHS	APD Medicaid Long-Term Care System
Angela Munkers	Delivery	DHS	APD Field Services Manager
Nate Singer	Delivery	DHS	APD Central Delivery Supports
Tom Jaeger	Budget	DHS	Fiscal Analyst
Jim Carbone	Governor's rep	DAS, CFO's Office	Budget/Policy Analyst
Laurie Byerly	Legislature's rep	Legislative Fiscal Office	Principal Legislative Analyst
Scott Bond	External	Oregon Cascades West Council of Governments	Director, Senior and Disabilities Services
Peggy Brey	External	Multnomah County	Director, Aging and Disabilities Services
Cathy Clay-Eckton	External	Multnomah County	Aging and Disability Services
Chris Flammang	External	-	Public member

CHILD WELFARE

Lois Day	Program	DHS	Child Welfare (CW) Director
Maurita Johnson	Program	DHS	Child Welfare (CW) Deputy Director
Stacey Ayers	Program	DHS	Child Safety Program Manager / CPS
Carla Crane	Program	DHS	Post Adoption Services Manager
Kevin George	Program	DHS	Child Well Being Program Manager
Harry Gilmore	Program	DHS	Child Welfare, Interstate Compact and Contracts Manager
AJ Goins	Program	DHS	Child Well Being Program Manager
Sherril Kuhns	Program	DHS	Office of Federal Compliance
Stacy Lake	Program	DHS	Differential Response Manager
Kathy Prouty	Program	DHS	Child Permanency Program Manager
Jason Walling	Program	DHS	Child Welfare Innovations Manager
Ryan Vogt	Delivery	DHS	Assist. Administrator CW & SSP Field
Jerry Waybrant	Delivery	DHS	COO CW & SSP
Ralph Amador	Budget	DHS	Budget Administrator
Cindy Pease	Budget	DHS	Fiscal Analyst
Tamara Brickman	Governor's rep	DAS, CFO's Office	Budget/Policy Analyst
Laurie Byerly	Legislature's rep	Legislative Fiscal Office	Principal Legislative Analyst
Leola McKenzie	External	Oregon Justice Department	

INTELLECTUAL AND DEVELOPMENTAL DISABILITIES

Trisha Baxter	Program	DHS	COO APD & I/DD Svcs; Acting Director I/DD
Mike Maley	Program	DHS	I/DD Deputy Director
LeaAnn Stutheit	Program	DHS	I/DD Deputy Director
Bruce Baker	Program	DHS	Children's Services and Family Supports Mgr
Chelas Kronenberg	Program	DHS	Contracts, Hearings & Eligibility
Eleshia Ledridge	Program	DHS	ReBAR Program Manager
Jana McLellan	Program	DHS	Mgr Stabilization & Crisis Unit Group Homes
Darlene O'Keefe	Program	DHS	QA Manager
Ralph Amador	Budget	DHS	Budget Administrator
Laura Bastien	Budget	DHS	Fiscal Analyst
Jim Carbone	Governor's rep	DAS, CFO's Office	Budget/Policy Analyst
Laurie Byerly	Legislature's rep	Legislative Fiscal Office	Principal Legislative Analyst
Sarah Jane Owens	External	Association of Oregon Community Mental Health Programs	I/DD Specialist
Margaret Theisen	External	Full Access Brokerage	Executive Director
Pat Zullo	External	Clackamas County	

SELF SUFFIENCY PROGRAMS

Liesl Wendt	Program	DHS	Self Sufficiency Director
Carol Lamon	Program	DHS	SSP Deputy Director
Belit Burke	Program	DHS	SNAP Program Manager
Xochitl Esparza	Program	DHS	TANF/JOBS Program Manager
Brian Kirk	Program	DHS	State Family Pre SSI/SSDI Program Manager
Rhonda Prodzinski	Program	DHS	Child Care & Refugee Program Manager
Sandy Dugan	Delivery	DHS	Administrator CW & SSP Field
Ralph Amador	Budget	DHS	Budget Administrator
Timothy Gillette	Budget	DHS	Fiscal Analyst
Mark Werner	Budget	DHS	Fiscal Analyst
Tamara Brickman	Governor's rep	DAS, CFO's Office	Budget/Policy Analyst
Laurie Byerly	Legislature's rep	Legislative Fiscal Office	Principal Legislative Analyst

VOCATIONAL REHABILITATION

Stephanie Taylor	Program	DHS	Voc Rehab Services (OVRS) Administrator
Ron Barcikowski	Program	DHS	OVRS Research Analyst
David Ritacco	Program	DHS	OVRS Budget & Performance Analysis MGR
Ralph Amador	Budget	DHS	Budget Administrator
Judy Barker	Budget	DHS	Lead Fiscal Analyst
Tamara Brickman	Governor's rep	DAS, CFO's Office	Budget/Policy Analyst
Laurie Byerly	Legislature's rep	Legislative Fiscal Office	Principal Legislative Analyst

OHA PROGRAM COMMITTEES

MEDICAL ASSISTANCE PROGRAMS

Judy Mohr Peterson	Program	OHA	MAP Director
Rhonda Busek	Program	OHA	MAP Deputy Director
Leslie Clement	Program	OHA	Medicaid Alignment Director
Karen House	Program	OHA	Medicaid Client Services
Pam Martin	Program	OHA	Addictions & Mental Health Director
Don Ross	Program	OHA	Contracts/Waiver/State Plan Policy & Plng
Roger Staples	Program	OHA	MAP Program Support Section Manager
Dale Marande	Program	DHS	APD Financial Medical Manager
Annabelle Atalig	Budget	OHA	Fiscal Analyst
Melissa Schindler	Budget	OHA	Fiscal Analyst
Kate Nass	Governor's rep	DAS, CFO's Office	Budget/Policy Analyst
Linda Ames	Legislature's rep	Legislative Fiscal Office	Principal Legislative Analyst
Deb Berggren	External	CareOregon	Forecasting Manager
Jay Grussing	External	Cover Oregon	Financial Analyst
Steve Robinson	External	Decision Metrics	General public
Elyssa Tran	External	Apprise Health Insights	Director, Government Services
Stephen Willhite	External	Public member	Retired DHS|OHA Forecaster

MENTAL HEALTH

Pam Martin	Program	OHA	AMH Director
Jeff Emrick	Program	OHA	AMH Deputy Director
Mike Morris	Program	OHA	AMH Administrator
Darcy Strahan	Program	OHA	Residential Programs & Services Manager
Ralph Summers	Program	OHA	Adult MH Services Manager
Jon Collins	Analytics	OHA	Health Analytics, Health Programs Analysis & Measurement
Silke Blaine	Budget	OHA	Budget Admin - AMH & Public Health
Chris Erikson	Budget	OHA	Fiscal Analyst
Kate Nass	Governor's rep	DAS, CFO's Office	Budget/Policy Analyst
Linda Ames	Legislature's rep	Legislative Fiscal Office	Principal Legislative Analyst
Mitzi Naucler	External	Legal Aid Services of Oregon	Regional Director

Appendix II
FORECAST POLICY ADVISORY COMMITTEE CHARTER

Select Committee Charter Type:
☐ **Decision Making Committee:** Committee has delegated authority to commit each agency to a decision and requires Joint Operation Steering Committee (JOSC) approval.
☒ **Advisory Committee:** Committee provides recommendations and advice.
☐ **Informational Committee:** Committee shares information and best practices.

Background

The Office of Forecasting, Research and Analysis (OFRA) provides independent, objective, transparent caseload forecasts for all major entitlement programs in the Department of Human Services (DHS) and the Oregon Health Authority (OHA). When HB 2009 split DHS into two agencies, OFRA was designated a shared service supporting both agencies. As a shared service, OFRA's responsibilities are documented in a Service Level Agreement posted on the DHS|OHA intranet as well as OFRA's internet website.

OFRA uses two types of advisory committees:

- The Forecast Policy Advisory Committee (FPAC) provides advice on technical process and tools, and serves as an objective external channel to address and elevate issues of forecaster independence, should any arise.
- The Caseload Forecast Advisory Committees (CFACs) are governed by a separate charter and provide advice and input on the official caseload forecasts for each major program area. CFACs are maintained for each of the following program areas: OHA – Medical Assistance Programs, Mental Health; DHS - Aging and People with Disabilities, Child Welfare, Developmental Disabilities, Self-Sufficiency, and Vocational Rehabilitation.

During the 2011 Legislative Session a bill was introduced to move OFRA from DHS|OHA to the Department of Administrative Services. The bill was scheduled, but never heard in committee. Following the 2012 session in which the bill was again bumped, the Secretary of State was asked to audit OFRA and provide recommendations. The requested audit took place during the fall of 2012 and recommendations were issued February 2, 2013 (as SOS Report Number 2013-03). Those recommendations included 1) creation of a new committee to review "caseload forecast policies and procedures, and to help ensure forecaster independence", and 2) to "continue using the caseload forecast advisory committees… to advise the forecasters on the caseload forecast numbers."

Forecasting Unit Principles

The following principles guide OFRA's forecast development process:

- The FPAC provides forecasters and unit management with technical advice
- CFACs provide forecasters with input and insight from policy experts, as well is feedback on the proposed forecasts
- Robust, candid discussion is expected from all committee members
- Forecast decisions are supported by data
- Forecasts are estimates of future caseload volume based on current policy
- Policy changes not yet approved are not included; changes that cannot be accurately quantified are identified as "risks" to the forecast
- The forecasting process is objective, transparent, and independent of political influence
- OFRA strives to avoid inappropriate influence, both real or perceived
- Innovation and continuous improvement principles/tools are applied to the forecasting process

Committee Purpose & Scope

The Forecast Policy Advisory Committee plays an important role in ensuring OFRA uses effective and appropriate policies, procedures, methods, and controls.

The FPAC's core purpose is to ensure that the following objectives are met:

a) The forecasting methods & tools used are sound and appropriate
b) The processes used within OFRA to develop, review, and finalize forecasts
   - Promote forecaster independence, objectivity, and transparency
   - Provide forecasters with appropriate input from internal and external stakeholders, but are free from inappropriate influence
c) The techniques & processes used to track and report forecast accuracy are sound, and promote the practice of self-evaluation and continuous improvement

The Committee's scope shall include:

- Reviewing & advising on OFRA's governance, principles, processes, methodologies, and tools
- Serving as a vehicle through which forecasters (or others) can raise issues perceived as jeopardizing or affecting the independence and objectivity of any caseload forecast

The Committee's scope shall exclude production, review, or oversight of official caseload forecasts

The FPAC shall:

- Provide expertise relevant to the forecasting process
- Provide suggestions for how processes could be improved
- Serve as a forum through which concerns about forecaster independence may be raised

Possible subjects:
Forecast development principles, processes, methodologies; Methods used to obtain, consider, and incorporate exogenous factors & stakeholder input; Methods for measuring forecast accuracy; What/how information is provided to executive & legislative staff, partners, stakeholders, public, etc.; Recommendations on how to improve forecast processes, accuracy, usefulness, transparency

Authority

The Forecast Policy Advisory Committee is chartered and sponsored by the DHS|OHA Joint Operations Steering Committee (JOSC)

Membership

To ensure independence, the Committee Chair shall be a person with forecasting experience, but not employed by, funded by, or who reports to either DHS or OHA.

The Forecast Policy Advisory Committee will include:

a) Government subject matter experts – individuals from other agencies with forecasting expertise
b) External subject matter experts – individuals from outside state government with forecasting expertise (academic institutions, private industry, and/or general public)
c) Representatives from the DAS CFO's Office and the Legislative Fiscal Office
d) Representatives appointed by the DHS|OHA Joint Operations Steering Committee

The OFRA Administrator and Forecasters will attend FPAC meetings unless directed not to by the Committee Chair. Other OFRA staff may attend as needed.

Roles and Responsibilities

Expectations of COMMITTEE MEMBERS:

- Provide expertise relevant to the forecasting process
- Provide feedback on OFRA's processes, methods and tools, and ideas for improvement
- Serve as a forum through which concerns about forecaster independence may be raised

m) Attend Committee meetings whenever possible

n) Provide feedback on information provided to the committee
o) When requested, review materials in advance of scheduled committee meetings
p) During committee meetings, participate in candid discussion, including asking and answering questions from other committee members
q) Notify the Committee Chair and OFRA Administrator when personal or organizational changes might impact your ability to continue participating on the committee
r) Communicate with DHS and OHA staff outside committee meetings
s) Immediately report any/all allegations of real or perceived inappropriate influence of a forecaster to the Committee Chair (see Advice and Recommendations Section below)

Expectations of OFRA STAFF:

- Utilize the expertise of FPAC members
- Remain open to suggestions, and incorporate them when appropriate
- Promptly address all concerns raised about inappropriate influence, either real or perceived. Treat all allegations and concerns as serious.

a) Meet as needed with the Committee Chair, committee members, and the committee as a whole
b) Before each meeting,
Coordinate with the Committee Chair to set an agenda and establish meeting objectives
Provide members an agenda and, if possible, with advance copies of materials to be discussed
c) Attend committee meetings as appropriate and participate in candid discussion, including asking and answering questions from other committee members
d) Take immediately action to research, address, and correct any instances of real or perceived inappropriate influence

Advice and Recommendations

The FPAC is an advisory committee whose purpose is to provide input on the appropriateness and efficacy of current forecasting processes and tools, and suggestions for improvement.

During Committee meetings, ideas and suggestions will arise and be discussed. OFRA staff are expected to listen with an open mind and incorporate ideas they find useful. It is likely, however, that views will differ as to the usefulness and necessity of any particular change. When a committee member feels that a specific change is essential, they should document their recommendation in writing and submit it to both the Committee Chair and the OFRA Administrator. Together the Committee Chair and OFRA Administrator will consider the recommendation, decide whether to make the recommended change, and provide the submitter a written response explaining their decision and reasoning.

If/when issues arise concerning forecaster independence,

- Escalate the issue immediately to the FPAC Chair
- The Committee Chair will report the allegation to both the DHS COO and OHA COO, and work with them to investigate the allegation and, if founded, develop a plan to correct the situation.

Relationship with Other Governance Groups

The Forecast Policy Advisory Committee will interact with other groups as needed to obtain information, provide input, and escalate issues. The most likely groups are:

- DHS|OHA Joint Operations Steering Committee (JOSC) – OFRA operates under the authority of JOSC as specified in the OFRA Service level Agreement.
- DHS and OHA Leadership – DHS and OHA Leadership are responsible for overall governance of their agencies and may request information from the Committee.
- DHS COO and OHA COO – If questions/issues arise with respect to forecaster independence, those concerns shall be escalated to the COO's for both DHS and OHA.
- DHS CFO and OHA Budget Director – The OFRA Administrator reports directly to these two individuals.
- DHS|OHA Caseload Forecast Advisory Committee (CFAC) – OFRA uses these committees to keep abreast of program changes and to review/discuss the forecasts developed for DHS and OHA.

Meeting Schedule, Support, and Documentation

The Forecast Policy Advisory Committees will meet as follows:

- The committee shall meet as needed, but not less than twice a year – before each legislative session and approximately six months later.
- Additional meetings may be called for any reason including to resolve specific issues or questions, or at the request of the Oregon Legislature or DHS|OHA executives.
- Subcommittees and temporary workgroups may meet as needed.
- Members of the committee may exchange electronic communication as needed.

The Office of Forecasting, Research and Analysis will:

- Schedule meetings and facilities, and provide equipment for the meetings, including electronics.
- Prepare and distribute an agenda in advance of meetings.
- Provide members with materials for review via email or hard copy. Committee members may be asked to print their own materials from electronic copies distributed prior to meetings.
- Maintain and distribute a record of each meeting, including the attendance, agenda, materials shared, action items, core discussion and recommendations of the committee.

Charter Review & Modification

OFRA staff shall review this charter with the Forecast Policy Advisory Committee at least biennially, and if warranted, update the charter. Changes may be made to the Charter based on recommendations from OFRA, JOSC, or the Committee.

Original approval by JOSC: 11/21/13
Latest revision: 12/06/13

FORECAST POLICY ADVISORY COMMITTEE MEMBERSHIP

Mark McMullen	State Agency	DAS, Office of Economic Analysis	State Economist
Chris Day	State Agency	Dept. of Consumer & Business Svcs	Senior Forecasting Analyst
Josh Lehner	State Agency	DAS, Office of Economic Analysis	Economist
Jennifer Shawcross	State Agency	Employment Department	Senior Economist
Tim Duy	External	University of Oregon	Sr. Director, Oregon Economic Forum
Xiaomin "Sam" Ruan	External	PSU, Population Research Center	.
Gwen Grams	External	JBS International	Technical Expert Lead
Ted Helvoigt	External	Evergreen Economics	Senior Economist
Steve Robinson	External	Decision Metrics	Consultant
Stephen Willhite	External	Public member	Retired DHS|OHA Forecaster
Tamara Brickman	Governor	DAS	CFO's Office, Budget/Policy Analyst
Jim Carbone	Governor	DAS	CFO's Office, Budget/Policy Analyst
Kate Nass	Governor	DAS	CFO's Office, Budget/Policy Analyst
Dae Baek	Legislature	LRO	Economist
Linda Ames	Legislature	LFO	LFO Principal Legislative Analyst
Laurie Byerly	Legislature	LFO	LFO Principal Legislative Analyst
Eric Moore	DHS	DHS	CFO
Bill Coulombe	OHA	OHA	Budget Director

Appendix III
DHS|OHA Caseload Forecast Glossary

GENERAL TERMINOLOGY

DEPARTMENTS

Department of Human Services (DHS) – State of Oregon department that helps people to become independent, healthy and safe. Services are provided through five programs: Aging and People with Disabilities, Child Welfare, Intellectual and Developmentally Disabled, Self-Sufficiency, and Vocational Rehabilitation.

Oregon Health Authority (OHA) – State of Oregon department comprised of Addictions and Mental Health Division, Division of Public Health, and Medical programs. Medical programs include the Oregon Health Plan (OHP), Public Employees Benefits Board (PEBB), Oregon Educators Benefits Board (OEBB), and Office of Private Health Partnerships (OPHP).

ADVISORY COMMITTEES

Caseload Forecast Advisory Committee (CFAC) – A group of program experts, budget analysts (from DHS, OHA, DAS, and the Legislative Fiscal Office), and external participants that review and advise on the forecasts.

Forecast Policy Advisory Committee (FPAC) – A group of technical experts (from DAS, other agencies, academia, and the public) and budget analysts (from DHS, OHA, DAS, and the Legislative Fiscal Office) that review and advise on the processes and tools used to create the DHS and OHA caseload forecasts.

BUDGET TERMS

Budget Development Stages --

- **Current Service Level budget (CSL)** – The starting point, or baseline, for developing a budget for the upcoming biennium. Changes in caseload volume (both up and down) are automatically factored into this baseline budget, and usually into each of the following stages as well.
- **Agency Request Budget (ARB)** – The budget submitted by DHS or OHA for the Governor's consideration.
- **Governor's Request Budget (GRB)** – The budget submitted by the Governor to the OR State Legislature.
- **Legislatively Approved Budget (LAB)** – The final budget approved by the Oregon State Legislature.

Rebalance – Progressive refinement of the current biennium's budget throughout the Budget Execution cycle.
Reshoot – Progressive refinement of the upcoming biennium's budget throughout the Budget Development cycle.

MISCELLANEOUS TERMS

Biennium – A two-year period; the period for which the State of Oregon budgets. For example: the 2015-2017 Biennium starts on July 1, 2015 and ends on June 30, 2017.

Exogenous (External) Factors – Social, demographic, and economic factors that influence changes in the caseload. These can be used in conjunction with historical trend analysis to project elements of the caseload. Caseload projections that incorporate external factors to some degree are called exogenous-forecasts.

Federal Poverty Level (FPL) – The income threshold below which a person is officially considered by the Federal government to lack adequate subsistence and to be living in poverty.

DATA SOURCES

DHS Datamart – A data warehouse administered by the DHS Office of Business Intelligence containing client level data from most DHS programs (APD, CW, I/DD, SSP). Detailed data from each program area is stored separately, but NOT linked across program areas.

Integrated Client Services Data Warehouse (ICS) – A data warehouse administered by the DHS Office of Forecasting, Research & Analysis containing client level data from most DHS and OHA programs (APD, CW, I/DD, SSP, VR, MAP, AMH, PH). Individual clients are linked across programs and through time, so that it's possible to see how individual clients use multiple programs and how often.

REPORTS

Annual Quality Report - A report prepared annually to evaluate OFRA's forecasts with respect to 1) Accuracy, and 2) Statistical Bias. For budgeting purposes, Statistical Bias is the most important measure. This report contains data on the last ten forecast cycles for all forecasted program areas, and is based on comparing "actuals" to the forecasted volume.

Monthly Caseload Variance Report –A set of reports (one for each program area) prepared monthly to track whether "actuals" are coming is as forecasted. Forecasting watches the variances to assess the accuracy of forecasts and to identify details that may require research. Budgeting watches the variances as a routine part of "budget execution".

FORECASTING TERMS

Caseload forecasts provide monthly data for each separate caseload category.
Forecast CHARTS display monthly detail; while forecast TABLES contain Biennial Averages.

Forecasts (or estimates) are projections of future caseload volume; *preliminaries* are historical caseload counts that are still subject to change; *actuals* are historical caseload counts that are considered finalized count of clients served.

Actuals – Historical caseload counts that are considered a finalized count of clients served.

Biennial Average – The average of the monthly caseloads over a fiscal biennium.

$$\text{2015-2017 biennial average} = \frac{\text{July 2015 caseload + Aug 2015 caseload + … + June 2017 caseload}}{\text{24 (number of months in a biennium)}}$$

Caseload – The number of people or cases counted in a given period. For a more detailed explanation of how "case" is defined for each program area, see the applicable Caseload Definition section of this document.

History – The number of people/cases on the caseload in the past; determined by using DHS & OHA data systems.

Preliminaries – Historical caseload counts for which it is too early to have a finalized count of clients. For instance, within Medical Assistance Programs and due to 'retro-eligibility' (beginning a client's enrollment up to 3 months prior to the current month), caseload counts are not considered 'final' until a full 3 months have passed.

Average Daily Population (ADP) – The sum of the daily populations divided by the number of days in the month. ADP is calculated by adding days of service for the entire month (person days) and dividing by the number of days in the month.

FORECASTING TOOLS / TECHNIQUES

Statistical Techniques –

ARIMA – Auto-regressive iterated moving average is a forecasting method for time series data.

Box-Jenkins method – Box and Jenkins (1976) developed a method to estimate an appropriate time series model for forecasting.

Looking Glass Forecasting Model (LGAN)–

LGAN is the primary tool used by OFRA forecasters to prepare statewide caseload forecasts; the regional forecast requires different tools. The LGAN model is based on the statistical technique of *survival probability* and the concept that clients start service in a given program by virtue of being a new client or by transitioning from another service.

The model simulates the movement of clients or client groups such as families or households in and out of services. The model is structured around "components-of-change", allowing forecasters to manage the forecast by focusing on key assumptions pertaining to: Intakes, Transitions, Exits, and Time of Case.

The underlying math is: Intakes + Carry-Forward – Exits = Caseload for next month

Key concepts in the LGAN model include:

- ***Intakes:*** Clients that start a service in a given month; these can be first-time clients, repeat clients, or clients that have transitioned directly from another service.
- ***Carry-forward:*** Clients that continue service from one month to the next; that is, they *survive* the previous month of service
- ***Exits:*** Clients that do not continue service from one month to the next; that is, they *do not survive* the previous month of service. Clients can exit by leaving all services or by transitioning among service categories.

Intake – Caseload 'intakes' are defined in two ways: New clients are defined as any client who appears on any measured caseload in a given month and who WAS NOT on any measured caseload in the prior month. See 'Transition' below for a second measure of 'intake'. A variety of time series models are applied to historical new client patterns to generate probable future patterns.

Transition – A second type of 'intake' is comprised of 'transitioning' clients. A transitioning client is one who appears on a caseload in a given month and was on a DIFFERENT measured caseload in the prior month. Historical transitioning patterns between all groups are used to develop estimates of future transition patterns.

Exit – An exit is any client who leaves a measured caseload in a given month and DOES NOT APPEAR on any measured caseload in the following month. Exits are conceptualized as a type of transition (see above). Existing historical patterns for all groups are used to develop estimates of future exit patterns.

Time on Case (TOC) – The amount of time a client remains on a caseload before exiting or transitioning to another caseload is a critical component of the forecasting methodology. Time on caseload estimates are expressed in terms of 'survival distributions' which provide probabilities of being on any given caseload in the current month if that client was on the same caseload in the prior month.

DHS CASELOAD DEFINITIONS

AGING AND PEOPLE WITH DISABILITIES (APD)

Aging and People with Disabilities programs provide Long-Term Care (LTC) services to qualifying people who, due to their age or disabilities, need help with their activities of daily living (ADL), including eating, dressing/ grooming, bathing/ personal hygiene, mobility, bowel and bladder management, and cognition.

Area Agencies on Aging (AAA) and DHS staff help clients find the appropriate care settings to meet their needs and determine financial eligibility.

Historically, Oregon's LTC services were provided under the authority of a Medicaid 1915 (c) Home and Community-Based Services (HCBS) Waiver (under the Omnibus Budget Reconciliation Act of 1981), which allows the State to provide home and community-based care alternatives to institutional care such as nursing facilities.

Beginning in July 2013, using a new option available due to the Patient Protection and Affordable Care Act of 2010 (ACA), Oregon also began offering services through the Community First Choice Option under 1915 (k) of the Social Security Act (referred to simply as the K Plan).

To qualify for LTC clients must meet financial and non-financial requirements which vary depending on whether the individual will be covered under the Waiver or the K Plan. To qualify for LTC under the HCBS Waiver, requirements include income and asset limits, disability (or age) requirements, and a level of care assessment. To qualify for LTC under K Plan, there are fewer requirements: income limits (but no asset limits) and a level of care assessment (but no need to be determined "disabled").

The LTC caseloads are grouped into three major categories: In-Home, Community-Based Care, and Nursing Facilities.

IN-HOME PROGRAMS

In-Home programs provide personal services that help people stay in their homes when they need assistance with Activities of Daily Living (ADL).

In-Home Hourly
In-Home Hourly caseload includes clients who hire hourly workers to assist them in meeting their ADL needs and other common household tasks.

In-Home Agency
In-Home Agency is an alternative way to purchase in-home care. Under this program, clients contract with an agency for the services they need, and those services are delivered in the client's own home by an employee of the agency. Screening and scheduling are often simpler when working with an agency.

Live-In
Live-In Provider caseload includes clients who hire a live-in home care worker to provide 24-hour care.

Spousal Pay
Spousal Pay caseload includes clients who choose to have their paid care provided by their spouse. Spouses are paid for the services they provide.

Independent Choices
Independent Choices allows clients more control in the way they receive their in-home services. Under this program, clients decide for themselves which services they will purchase, but are also required to keep financial records of the services they've purchased.

Specialized Living
Specialized Living provides care in a home-like setting for clients with specialized needs (such as quadriplegics or clients with acquired brain injuries). These clients are eligible for a live-in attendant, but because of their special needs, cannot live independently or be served in other Community-Based Care facilities.

State Plan Personal Care (Non-K Plan Medicaid Services)
State Plan Personal Care services are available to people who are eligible for Medicaid, but not eligible for waivered services. Services supplement the individual's own personal abilities and resources, but are limited to assistance with Activities of Daily Living and Instrumental Activities of Daily Living.

COMMUNITY-BASED CARE (CBC)

Community-Based Care caseload includes clients receiving services in licensed, community-based residential settings. Services include assistance with ADLs, medication oversight, and social activities. Services can also include nursing and behavioral supports to meet complex needs.

Assisted Living Facilities
Assisted Living Facilities are licensed 24-hour care settings serving six or more residents that provide private apartments and focus on resident independence and choice.

Adult Foster Care
Adult Foster Care provides long-term care in home-like settings licensed for five or fewer unrelated people. These facilities are open to clients who are not related to the care provider.

Residential Care Facilities
Residential Care Facilities (Regular or Contract) are licensed 24-hour care settings serving six or more residents. These facilities range in size from six beds to over 100. "Contract" facilities are licensed to provide specialized Alzheimer care.

Program of All-Inclusive Care for the Elderly (PACE)
PACE is a capitated Medicare/Medicaid program providing all-inclusive care. Seniors served in this program live in a variety of care settings. PACE is responsible for coordinating their clients' acute health and long-term care needs.

NURSING FACILITIES (NFC)

Nursing Facilities provide institutional services for seniors and people with disabilities in facilities licensed and regulated by DHS. Nursing facilities provide clients with skilled nursing services, housing, related services and ongoing assistance with activities of daily living.

Basic Care
Basic Care clients need comprehensive, 24-hour care for assistance with ADLs and ongoing nursing care due to either age or physical disability.

Complex Medical Add-On
Complex Medical Add-On clients have medical conditions that require additional nursing services and staff assistance beyond Basic Care.

Enhanced Care
Enhanced Care clients have difficult to manage behavioral issues such as self-endangering behaviors, physical aggression, intrusiveness, intractable psychiatric symptoms, or problematic medication needs that require special care in Nursing Facilities. Some of these clients are also served in community-based care facilities.

Pediatric Care
Pediatric Care clients are children under 21 who receive nursing care in pediatric nursing facility units.

CHILD WELFARE (CW)

Child Welfare programs oversee the safety of children who have been abused or neglected. The Child Protective Services (CPS) program investigates reports of child abuse or neglect. If abuse or neglect is founded, caseworkers prepare an action plan and provide case management to ensure safety for the child using the strengths of the family.

The Child Welfare caseload is an unduplicated count of children served in the various programs listed below. A child can be counted only once during a month, and if there is participation in more than one of the programs listed below, they are counted in only one group. The groups are listed below in order of this counting priority.

Adoption Assistance
Adoption Assistance coordinates and supervises adoption for children in foster care who cannot return safely to the care of their biological parents. Adoption Assistance services can include financial and/or medical help with the costs associated with the adoptive child's needs.

Guardianship Assistance
Guardianship Assistance helps remove financial barriers for individuals who provide a permanent home for children who would otherwise be in Foster Care. Guardianship allows an alternative plan to adoption. Guardianship Assistance services can include financial support for costs associated with the needs of the child (similar to a Foster Care payment).

Out of Home Care
Out of Home Care programs provide a safe, temporary home for abused or neglected children who cannot remain safely in their homes. Children in the program are placed with relatives, foster families, or in residential treatment care settings. The program aims to reunite children with their parents. Out of Home Care services can include financial support and/or medical help for costs associated with the child's needs.

Child In Home
In-Home Services provide support and safety monitoring services to prevent placement of children in Foster Care and to support reunification with the parents after Foster Care. Caseworkers oversee services and monitor in-home safety plans for children. In-Home Services can include financial support for costs associated with the safety, permanence and well-being of children, and outside resources to help meet those needs.

INTELLECTUAL AND DEVELOPMENTAL DISABILITIES (I/DD)

Intellectual and Developmental Disabilities programs provide support to qualified adults and children with intellectual and developmental disabilities through a combination of case management and services. Intellectual and Developmental disabilities include intellectual disabilities, cerebral palsy, Down's syndrome, autism and other impairments of the brain that occur during childhood. Some people with intellectual and developmental disabilities also have significant medical or mental health needs.

Adults with intellectual and developmental disabilities may be eligible for services ranging from supports to help individuals live in their own homes to 24-hour comprehensive services. Twenty-four-hour services are provided in a variety of settings including group homes and foster homes. Children with intellectual and developmental disabilities may be eligible for services ranging from family

support to out-of-home placements. Placements include foster homes or residential group home settings.

The forecasted Intellectual and Developmental Disabilities programs are counts of individual clients receiving a program's services within the month. Clients can receive services from more than one program in the same month (for example, from both a residential and a support program).

Case Management Enrollment
Case Management Enrollment provides entry-level eligibility evaluation and coordination services.

The other caseloads are grouped into three broad categories: adult services, children services, and other services.

Adult services include:

24-Hour Residential Care
24-Hour Residential Care provides 24-hour supervised care, training and support services delivered in neighborhood homes.

Supported Living
Supported Living provides individualized support services to clients in their own home based on their Individual Support Plan.

Adult In-Home Support
Comprehensive In-Home Services help individuals aged 18 years or older with intellectual and developmental disabilities to continue to live in their homes. These services can be accessed through both CDDP and brokerage.

I/DD Foster Care
Foster Care provides 24-hour care, supervision, provision of room and board, and assistance with activities of daily living for both adults and children (approximately 87 percent and 13 percent respectively).

Stabilization and Crisis Unit
Stabilization and Crisis Unit (previously called State Operated Community Programs) offers safety net services and support to the most vulnerable, intensive, medically and behaviorally challenged I/DD clients when no other community based option is available to them. The program serves both adults and children (approximately 88 percent and 12 percent respectively).

Children's services include:

In-Home Support for Children
In-Home Support for Children (also called Long-Term Support) provides services to individuals under the age of 18 in the family home.

Children Intensive In-Home Services
Children Intensive In-Home Services cares for children with intensive medical or behavioral needs in their own homes. This caseload is composed of three distinct groups: Medically Fragile Children Services, Intensive Behavior Program, and Medically Involved Programs.

Children Residential Care
Children Residential Care provides 24-hour care, supervision, training, and support services to individuals under the age of 18 in neighborhood homes other than the family home or foster care.

Other I/DD services include:

Employment and Day Support Activities
Employment and Day Support Activities are out-of-home employment or community training services and related supports, provided to individuals aged 18 or older, to improve the individuals' productivity, independence and integration in the community.

Transportation
Transportation services are state-paid public or private transportation provided to individuals with intellectual and developmental disabilities.

SELF SUFFICIENCY PROGRAMS (SSP)

Self Sufficiency programs provide assistance for low-income families to help them become healthy, safe, and economically independent. With the exception of SNAP, self-sufficiency program caseloads count the number of families receiving program benefits within the month. In the SNAP program, caseloads count the number of households receiving the benefit within the month.

Supplemental Nutrition Assistance Program (SNAP)
As of October 1, 2008, the new name for the federal Food Stamp Program is the Supplemental Nutrition Assistance Program (SNAP). Oregon began using the new name on January 1, 2010.

SNAP benefits improve the health and well-being of low-income individuals by providing them a means to meet their nutritional needs. Recipients use SNAP benefits to buy food.

To be eligible for SNAP benefits, applicants provide proof of household composition (living in same dwelling, purchase food and prepare meals together) and have assets and income within program limits. The maximum income limit is 185 percent of Federal Poverty Level (FPL) ($44,123 for a household of four); most recipients qualify below 130 percent of FPL.

The SNAP forecast includes two caseloads – APD and SSP. Households entering the program through the Self Sufficiency Programs (SSP) are classified as SSP households, while those entering the program through Aging and People with Disabilities (APD) are classified as APD households. The two caseloads share eligibility guidelines and benefits amounts.

Temporary Assistance for Needy Families (TANF)
The Temporary Assistance for Needy Families program provides case management and cash assistance to very poor families with minor children. The goal of the program is to reduce the number of families living in poverty through employment services and community resources.

Recipients must meet basic TANF asset requirements (including a $2,500 - $10,000 resource limit and income less than 40 percent of FPL) to be eligible for the program. They must also meet non-financial eligibility requirements including dependent children in the case, Oregon residence, citizenship status, parental school attendance, pursuing assets, deprivation (death, absence, incapacity, or unemployment of a parent) and pursuing treatment for drug abuse or mental health as needed.

The TANF Basic program includes one-parent families and two-parent families where at least one parent is unable to care for children, or families headed by an adult relative who is not considered financially needy.

The TANF UN program includes families where both parents are able to care for their children, but both are unemployed or underemployed.

Pre-SSI

The State Family Pre-SSI/SSDI (SFPSS) program provides cash assistance, case management, and professional level support to TANF-eligible adults and their family in pursuing Supplemental Security Income (SSI) and Supplemental Security Disability Income (SSDI). To be eligible for Pre-SSI, the adult must be found eligible for a TANF grant and must have severe physical or mental impairment(s) that has been assessed and determined to meet the program impairment criteria by the program's disability analyst.

Temporary Assistance to Domestic Violence Survivors (TA-DVS)
The TA-DVS program supports domestic violence survivors by providing temporary financial assistance to flee domestic violence. TA-DVS payments can be issued to meet the family's needs for shelter, food, medical care, relocation, stabilization, or to promote safety or independence from the abuser.

To be eligible for TA-DVS, a survivor must have a current or future risk of domestic violence; be a pregnant woman or a parent or relative caring for a minor child; and must have income not exceeding TANF limits (40 percent of FPL; TA-DVS only considers income on hand that is available to meet emergency needs).

VOCATIONAL REHABILITATION (OVRS)

Vocational Rehabilitation Services assess, plan, and coordinate vocational rehabilitation services for people who have physical or mental disabilities and need assistance to obtain and retain employment that matches their skills, potential, and interest. Services are provided through local VR offices across the state. The program provides counseling, training, job placement, assistive technology, and extended services and supports.

OHA CASELOAD DEFINITIONS

MEDICAL ASSISTANCE PROGRAMS (MAP)

Medical Assistance Programs coordinate the Medicaid portion of the Oregon Health Plan (OHP) and directly administer OHP physical, dental, and mental health coverage.

Historically, MAP programs were divided into three major categories based on benefit packages:

- Oregon Health Plan Plus (OHP Plus) – a basic benefit package.
- Oregon Health Plan Standard (OHP Standard) – a reduced set of benefits with additional premiums and co-payments for coverage.
- Other Medical Assistance Programs – programs that provide medical benefits but are not considered part of OHP.

Starting in January 2014 there are only two major categories since OHP Standard was discontinued. At that time, all OHP Standard clients were moved to the new ACA Adults caseload group, where they became eligible for OHP Plus benefits.

OHP Plus Benefit Package
The OHP Plus package offers comprehensive health care services to children and adults who are eligible under CHIP or the traditional, federal Medicaid rules. The new ACA Adults caseload also receives this benefit package.

ACA Adults
This is a new caseload which represents the expansion of Medicaid under the United States Federal Patient Protection and Affordable Care Act of 2010 (ACA). This caseload includes citizens 18 to 64 years old with incomes up to 138 percent of FPL, who are not pregnant or disabled. ACA Adults are currently divided into two subcategories: ACA Adults with Children, and ACA Adults without Children. Starting with the Spring 2015 forecast, the subcategories will be changed to age cohorts.

Pregnant Women Program
This is the new name for Poverty Level Medical Women (PLMW). The Pregnant Woman Program provides medical coverage to pregnant women with income levels up to 185 percent of the FPL. Coverage is extended for 60 days after childbirth.

Poverty Level Medical Women (PLMW)
This caseload has been renamed Pregnant Woman Program.

Parent/Caretaker Relative
This is a new caseload comprised of adults who would previously have been included in the Temporary Assistance for Needy Families caseloads (TANF Related Medical and TANF Extended). Parent/Caretaker Relative offers OHP Plus medical coverage to adults with children who have incomes not exceeding approximately 42 percent of Federal Poverty Level (FPL).

Temporary Assistance for Needy Families (TANF)
This caseload has been replaced, with clients transferred to two other caseloads. Adults are now included in the Parent/Caretaker Relative caseload; and children are now included in the Children's Medicaid Program caseload.

Children's Medicaid Program
This is a new caseload comprised of children who would previously have been included in three other caseloads: children from the Poverty Level Medical Children caseload (PLMC), children from the TANF Medical caseloads (TANF-RM, TANF-EX), and children from lower income CHIP households.

The Children's Medicaid Program offers OHP Plus medical coverage to children from birth through age 18 living in households with income from 0 to 133 percent of Federal Poverty Level (FPL).

Poverty Level Medical Children (PLMC)
This caseload has been renamed Children's Medicaid Program and the income rules were widened to include children previously included in other caseloads.

Children's Health Insurance Program (CHIP)
This caseload has been redefined. This caseload now covers uninsured children from birth through age 18 living in households with income from 134 to 300 percent of FPL. Previously, this caseload covered children from households with income from 100 to 200 percent of FPL.

Foster, Substitute, and Adoption Care
Foster, Substitute, and Adoption Care provides medical coverage through Medicaid for children in foster care and children whose adoptive families are receiving adoption assistance services. Clients are served up to age 21, with the possibility of extending coverage to age 26 depending on client eligibility.

Aid to the Blind and Disabled Program (ABAD)
Aid to the Blind and Disabled provides medical coverage through Medicaid to individuals who are blind or disabled and eligible for federal Supplemental Security Income (SSI). The income limit is 100 percent of the SSI level (roughly 74 percent of FPL), unless the client also meets long-term care criteria, in which case the income limit rises to 300 percent of SSI (roughly 225 percent of FPL).

Old Age Assistance (OAA)
Old Age Assistance provides medical coverage through Medicaid for individuals who are age 65 or over and eligible for federal SSI.

Other Medical Assistance Programs (Non-OHP Benefit Packages)

Citizen/Alien Waived Emergent Medical (CAWEM)
Citizen/Alien Waived Emergent Medical is a program that covers emergent medical care for individuals who would qualify for Medicaid if they met the citizenship/residency requirements. The program has two subcategories:

- Regular (CAWEM CW) which provides only emergency medical care.
- Prenatal (CAWEM CX) which also covers all pre-natal medical services (plus up to 2 months post-partum).

Qualified Medicare Beneficiary (QMB)
Qualified Medicare Beneficiary clients meet the criteria for both Medicare and Medicaid participation. Clients in this caseload have incomes from 100 percent of SSI (roughly 74 percent of FPL) to 100 percent of FPL, and do not meet the criteria for medical covered long-term care services. DHS pays for any Medicare Part A and Part B premiums as well as any applicable Medicare coinsurance and/or deductibles not exceeding the Department's fee schedule.

Breast and Cervical Cancer Program (BCCP)
Breast and Cervical Cancer provides medical benefits for women diagnosed with breast or cervical cancer through the Breast and Cervical Cancer Early Detection program administered by Public Health through county health departments and tribal health clinics. After determining eligibility, the client receives full OHP Plus benefits. Clients are eligible until reaching the age of 65, obtaining other coverage, or ending treatment.

Discontinued Programs

OHP Standard Benefit Package (discontinued December 31, 2013)
This program has ended, with clients transferred to the new ACA Adults caseload. Prior to ACA, clients in OHP Standard were not eligible for traditional Medicaid programs. OHP Standard provided a reduced package of services compared to the OHP Plus program. OHP Standard also required participants to share some of the cost of their medical care through premiums and co-payments.

KidsConnect (discontinued December 31, 2013)
This program has ended, with clients transferred to the CHIP caseload. KidsConnect was part of the Healthy Kids program, offering private market insurance for children under age 19 with family income levels of 200 to 300 percent of FPL. The program had special funding and required a sliding scale co-pay to participate.

ADDICTIONS AND MENTAL HEALTH (AMH)

The Addictions and Mental Health program provides prevention and treatment options for clients with addictions and/or mental illnesses.

The mental health caseload groups have been redefined starting with the Fall 2014 forecast. The AMH caseload forecast is the total number of clients receiving government paid mental health services per month. AMH provides both Mandated and Non-Mandated mental health services, some of which are residential.

Total Mandated Population
Mandated caseloads include both criminal commitment and civil commitment caseloads. Mandated populations are required to receive mental health services by Oregon law through community settings and State Hospitals. The State Hospitals provide 24-hour supervised care to people with the most severe mental health disorders, many of whom have been committed because they are a danger to themselves or others, including people who have been found guilty except for insanity.

Aid and Assist - State Hospital
Criminal Aid and Assist (or "Fitness to Proceed") caseload serves clients who have been charged with a crime and are placed in the Oregon State Hospital until they are fit to stand trial. “Fitness to Proceed” means that the client is able to understand and assist the attorney. Clients in the Aid and Assist caseload receive psychiatric assessment and treatment until they are able to assist their attorney and stand trial.

Guilty Except for Insanity (GEI)
The GEI caseload includes clients who are under the jurisdiction of the Psychiatric Security Review Board as well as clients at the State Hospital who are under the jurisdiction of the State Hospital Review Panel. Clients in GEI caseloads have been found “guilty except for insanity” of a crime by a court. AMH is required by Oregon law to provide treatment and supervision for these individuals, either in the community or in a State Hospital. Clients in this caseload receive a full range of counseling, medication, skills training and supports to assist their progress toward recovery.

Civil Commitment
This caseload has been redefined to include only individuals currently under commitment (although a proxy rule is currently being used to estimate the end date for clients’ mandated service). The Civilly Committed caseload includes people who are found through a civil court process to be dangerous to themselves and/or others or are unable to care for themselves as a result of mental illness, with the court mandating treatment for the individual. They may be served at the State Hospital or in the community.

Previously Committed

This is a new caseload. The Previously Committed caseload includes people who were previously either civilly or criminally committed but whose commitment period has ended. These clients continue to receive individual services, counseling, training, and/or living supports. About 80 percent of these clients are served in non-residential settings only, and the rest are served in residential settings, the State Hospital, or Acute Care hospital settings.

Never Committed
This is a new caseload. The Never Committed caseload includes people who have never been either civilly or criminally committed but who are receiving mental health services either in the community or in a residential setting. About 97 percent of these clients are served in non-residential settings only, and 2 percent are served in Acute Care hospital settings. The rest are served in residential settings or the State Hospital. Clients in the State Hospital are of a voluntary or voluntary by guardian status.