CALHR
CALIFORNIA DEPARTMENT OF HUMAN RESOURCES
Statewide Workforce Planning and Recruitment

Workforce Data Analysis Methodology

What is the Workforce Data Analysis Methodology?

CalHR's Workforce Data Analysis Methodology guides departments through a detailed set of separation analytics to perform on a department's workforce data.

When should a department use the Workforce Data Analysis Methodology?

The Workforce Data Analysis Methodology should be used when a department wants to conduct an in-depth analysis on the workforce data gathered from their Management Information Retrieval System's report (MIRS). Analyzing workforce data is part of the gap analysis process detailed in Phase 2 of the State of California Workforce Planning Model. The tool helps the department perform analytics that will assist in revealing current separation trends and future separation trends to begin prioritizing classifications that are at risk, in order to develop strategies that will mitigate the risk to their workforce needs.

Who should use the Workforce Data Analysis Methodology?

The workforce planning steering committee, or individual(s) involved in workforce planning for a department, should utilize the Workforce Data Analysis Methodology.

How does a department use the Workforce Data Analysis Methodology?

Before using the Workforce Data Analysis Methodology, the department must request a MIRS report to gather all of the following workforce data for **each classification** in the department:

- ❒ Class Title
- ❒ Employee Name
- ❒ Position #
- ❒ Age
- ❒ Seniority Service Months
- ❒ Status
- ❒ Tenure
- ❒ CBID
- ❒ Transaction Code

The Transfer Factor analysis requires data on lateral transfers to other departments in state government, which can be requested from a department's personnel office.

Using the data, the department can follow the Workforce Data Analysis Methodology to determine each classification's risk level to assist in prioritizing the development workforce planning strategies.

For Assistance

Contact CalHR's Statewide Workforce Planning and Recruitment Unit at wfp@calhr.ca.gov or (916) 322-0742 with any questions or concerns about the Workforce Data Analysis Methodology.

Factor	Workforce Data	Definition	Equation	Example Calculation	Rationale
Retirement Factor (RF)	Service and disability retirements	The Retirement Factor (RF) is the proportion of employees (EE) in a classification lost to both service and disability retirements during the last twelve months.	RF = (r/t)100 Where *r* is the total retirements in the last twelve months, and *t* is the average monthly number of employees in the classification during the last twelve months. Multiply by 100 to express as a percentage.	(12 retired/110 EE)100 = 10.9%	The state's workforce planning priorities have primarily focused on the expected increase of retirements as many state employees reach retirement age. The RF provides the data to show the impact of retirements on staffing for each classification. A relatively high RF may signal an increased need for succession planning strategies.
Transfer Factor (TF)	Lateral transfers to other departments in state government	The Transfer Factor (TF) is the proportion of employees (EE) in a classification that laterally transferred to another department in the state government during the last twelve months.	TF = (l/t)100 Where *l* is the total lateral transfers in the last twelve months, and *t* is the average monthly number of employees in the classification during the last twelve months. Multiply by 100 to express as a percentage.	(6 transfers/110 EE)100 = 5.5%	Lateral transfers between departments are a common separation at the state. Employees who laterally transfer take their departmental training and expertise with them to another department. A relatively high TF may signal an increased need for retention strategies.

Factor	Workforce Data	Definition	Equation	Example Calculation	Rationale
Separations Factor (SF)	Voluntary separations from state service	The Separations Factor (SF) is the proportion of employees (EE) in a classification that voluntarily separated from state government during the last twelve months.	SF=(v/t)100 Where *v* is the total voluntary separations in the last twelve months, and *t* is the average monthly number of employees in the classification during the last twelve months. Multiply by 100 to express as a percentage.	(3 voluntary/110 EE)100 = 2.7%	Voluntary separations from state service especially impact classifications with training and skills that apply to higher paying positions in the private sector or federal and local governments. Given the changing attitudes about career longevity seen in younger generations, this factor may have greater impact in years to come. A relatively high SF may signal an increased need for recruitment and/or retention strategies.
Potential Impact (PI)	Takes into account current vacancies, retirement age employees, and recruitment.	The Potential Impact (PI) projects the percentage of the classification that could become vacant due to retirements and lack of recruiting efforts in the coming year.	PI = ((vp+ra-re)/ep)100 Where *vp* is the total of current vacancies, *ra* is the total employees aged 50 or older, *re* is the total positions currently being recruited, and *ep* is the total positions established in the classification. Multiply by 100 to express as a percentage.	((5 vacant+5 retirement age employees-2 positions being recruited)/110 established positions)100 = 7.2%	The PI calculation is used to forecast risks in a classification including recruitment difficulties and/or high amount of employees at retirement age. Unlike the other calculations, PI does not use historical data but rather focuses on forecasting based on current conditions. A relatively high PI is a signal to consider strategies to address the potential risks posed by recruitment difficulties and upcoming retirements.

Factor	Workforce Data	Definition	Equation	Example Calculation	Rationale
Actual Impact (AI)	Takes into account all the above separations during the last twelve months.	The Actual Impact (AI) is the proportion of the classification that was lost to separations during a given year.	AI = ((r+l+v)/t)100 Where *r* is the total retirements, *l* is the total lateral transfers, and *v* is the total voluntary separations in the last twelve months, and *t* is the average monthly number of employees in the classification during the last twelve months. Multiply by 100 to express as a percentage.	((12+6+3)/110)100 = 19%	The AI calculation is used to determine the total proportion of the classification lost to separations in a given year. This calculation is used along with other factors when analyzing workforce supply gaps. A relatively high AI is a signal to look more closely at the particular separation type(s) that are common in the classification and develop strategies to address the risks posed by those separation(s).
Trend Analysis (TA)	Takes into account all the above separations over multiple years.	The Trend Analysis (TA) estimates the percentage of employees that can be expected to separate from the classification over a time.	*TA = (25%)AI1+(25%)AI2+(50%)AI3 Where *AI1, AI2 and AI3* are the Actual Impact variables from past three years, with AI3 being the most recent completed year. *This formula assumes the most recent employment data is a better predictor of future impacts. If a workforce trend occurred that was specific to the most recent year, you may choose to weight all three years equally so that the projected years are not skewed.	(25%)10.9+(25%)5.5+(50%)2.7 = 5.45%	The TA calculation is used to identify classifications which, on average, experience a relatively greater impact due to separations in general. A relatively high TA is a signal that a high amount of separations can be expected from the classification.

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