17% Incentive-Based Funding Model and Metric Options

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This brief provides an overview of three possible Incentive-Based Funding (IBF) models, plus several options for calculating interim progress and for creating additional weights in the model that would incentivize colleges and regions to close equity gaps. The goal of presenting this information to the 17% Committee is to inform a discussion about which variables should be included in broader data modeling.

Overview of Potential 17% Models

At the second meeting of the 17% Committee, interest was expressed in examining the outcomes of both a points-based system and an improvement-based system, with a focus on the amount of funding stability each model would create. Therefore, WestEd constructed three possible models for the Committee to review based on the discussion at the February 17% Committee meeting, and information gathered from the Chancellor's Office and experts from other states. The first IBF model is a points-based system. In the second model, funding is awarded based on whether outcomes increased by 2% over the funding timeframe. The third model is constructed to reward improvement by any amount within the funding timeframe.

The initial data models incorporated several preliminary recommendations of the Committee:

- Rather than evaluating individual programs based on outcome projections, colleges should be evaluated on the actual student outcomes for all of their CTE programs.
- Similarly, regions should be evaluated on student outcomes for all CTE programs, at all of the colleges in the region, rather than just the programs and participating colleges listed in the regional plans.
- Interim measures should be included to track progress before a student completes a program or enters the workforce.
- Performance should be tracked over a three-year period to give time for longer-term investments to come to fruition and to allow sufficient time to include post-college outcomes including transfer, employment, and earnings.

To provide a general assessment of the budgetary impact of each of the three models on institutions' 17% funding allocations, WestEd analyzed Strong Workforce Program (SWP) data from 2010-2011 to 2013-2014. Data was pulled from the LaunchBoard SWP tab for all of the seven Doing What Matters macro-regions and seven colleges from across the state. Colleges were selected to reflect a blend of urban, rural, and suburban settings and a range of SWP allocation amounts. For simplicity of the initial model, only single-college districts were included, because funding was distributed at the district level.

To create a proxy for an "all-CTE" option, data were pulled for all college programs. Course enrollments were used as a proxy for an interim progress measure. Two SWP metrics were not included in the initial model due to missing data, including the *number of students who transferred* (only one year of data is currently available) and *job closely related to field of study* (in prior years, not all colleges participated in the survey that generates this metric). As outlined in the SWP legislation, these models presume that 17% of the local

share and 17% of the regional share of funding would be allocated based on student outcomes. Examples of the results of each model are provided in the appendix.

In each model, financial stability was evaluated by treating 17% of the overall SWP allocation to the college or the region as the baseline value. The amount of funding generated by each model was then compared to this baseline amount.

Option 1: Points System

In this model, the 17% funding would be assigned to colleges or regions based on the number of students in each institution who meet each metric, with all metrics included in the equation. For example, the college or region would receive one point for each student who completes a degree or certificate and one point for each student employed in the second fiscal quarter after exit, without comparing these numbers to the institution's prior performance.

For the local share of funding, once the total number of points were determined for each college based on all of the metrics, the college totals were added together to create a total pool of points. Next, the total 17% funding amount for the local share ($19,380,000) was divided by the number of points earned by colleges to create a dollar value per point. Finally, the number of points at each college was multiplied by the dollar value per point to determine the college's allocation in the new funding cycle.

The same process was used to calculate the regional share of funding. The total 17% funding amount for the regional share ($12,920,000) was divided by the total points generated across all CTE programs in every college within each of the seven macro-regions to generate a dollar value per point. The total number of points in each region was then multiplied by the dollar value per point to determine each region's allocation in the new funding cycle.

The bulleted list below outlines how each metric was calculated.

- If course enrollments increased from the prior year, one point for each additional course enrollment.
- One point for each student who earned a degree or certificate.
- One point for each exiting student found in the state wage file in the second fiscal quarter after exit.
- One point for each exiting student found in the state wage file in the fourth fiscal quarter after exit.
- Multiply the dollar value of the increase in median earnings from the prior year by the number of students found in the state wage file in the second fiscal quarter after exit, then award the number of points equal to the product of this calculation.

- If earnings gains increased from the prior year, multiply the percentage change value by the number of students found in the state wage file in the fourth fiscal quarter after exit, then award the number of points equal to the product of this calculation.
- One point for each student who attained the regional living wage.

When examining stability in funding levels, this model provided the most favorable results. Changes in funding were smaller compared to the two improvement models, with no apparent disadvantage to colleges or regions with small CTE portfolios. Roughly an equal number of colleges and regions had increases or decreases in funding when compared to the baseline allocation. For colleges, this ranged from receiving 66% of the prior allocation ($125,569 less) to receiving 209% of the baseline amount ($139,638 more). For regions, the variation in funding levels ranged from receiving 63% of the prior amount ($488,120 less) to receiving 121% of the baseline funding ($149,264 more).

In a scenario where funding cuts reduce enrollment across the community college system or an economic downturn affects the whole state, the points model would leave colleges and regions on relatively even footing with each other. However, if an economic downturn hits one region harder than another, colleges and regions with fewer jobs and lower wages would be disadvantaged. At the same time, any disproportionate impact of an economic downturn would be counterbalanced by the portion of the 83% funding that is based on unemployment rates.

Option 2: 2% Improvement System

In this model, 17% of SWP funds would be earmarked for colleges and districts, based on the size of their allocation in the first year. In order to receive funding in the next cycle, colleges and regions would have to demonstrate 2% improvement by the end of the cycle, compared to the baseline year.

The metrics would be divided into four improvement areas: progress, completion, employment, and earnings. Grouping the metrics by improvement area allows for greater flexibility of outcomes based on student populations and programs at each college or region. Each of these four improvement areas would be assigned a quarter (25%) of the 17% set-aside. If the college or region improved outcomes in any of the metrics within the improvement area by 2%, they would receive 25% of the earmarked funds. Unallocated funds would be returned to the state to support technical assistance.

The bulleted list below outlines the model based on the four improvement areas.

- Progress: Must improve the following to earn 25% of the set-aside
    - 2% or greater increase in the number of course enrollments
- Completion: Must improve the following to earn 25% of the set-aside

    - 2% or greater increase in the number of students who earned a degree or certificate

- Employment: Must improve the following to earn 25% of the set-aside
    - 2% or greater increase in the number of exiting students found in the state wage file in the second fiscal quarter after exit

    OR

    - 2% or greater increase in the number of exiting students found in the state wage file in the fourth fiscal quarter after exit
- Earnings: Must improve the following to earn 25% of the set-aside
    - 2% or greater increase in the median earnings in the second fiscal quarter after exit

    OR

    - 2 percentage point or greater increase in earnings

    OR

    - 2 percentage point or greater increase in the number of students who attained the regional living wage

When examining stability in funding levels, this model provided the least favorable results. Despite a generally favorable employment climate during the years covered by the calculations, all regions and all but one college lost funding in this model due to declining course enrollments and stagnant employment outcomes. Six of the seven colleges received 50% of their baseline funding, creating reductions of between -$12,366 and -$184,631. Only one college received 100% of baseline funding. All seven regions received 50% of their baseline funding amounts, a decline that ranged from -$359,341 to -$1,417,451.

In a scenario where funding cuts reduce the size of the community college system or an economic downturn affects post-college outcomes, colleges and regions would likely receive less funding under this model because their programs would likely shrink and fewer students would be able to get jobs or increase earnings.

Option 3: Improve by Any Amount

Similar to the 2% Improvement Model, in this model 17% of the funds would be set aside for colleges and regions in the same proportion as in the baseline year. In order to receive funding in the next cycle, colleges and regions would have to demonstrate improvement in the current cycle. However, any improvement, even the improved outcomes of one student or the increase of a single dollar in earnings, would qualify the college or region for funding. Moreover, colleges or regions would only need to demonstrate improvement in a single year of the three-year cycle.

Again, the metrics would be divided into four improvement areas: progress, completion, employment, and earnings. If the region improved on one of the metrics in the improvement area by any amount in any year within the timeframe, they would receive a quarter of their funding allocation. Unallocated funds would be returned to the state to support technical assistance.

The bulleted list below outlines the model based on each metric.

- Progress: Must improve the following to earn 25% of the set-aside
    - number of course enrollments by any amount
- Completion: Must improve the following to earn 25% of the set-aside
    - number of students who earned a degree or certificate by any amount
- Employment: Must improve the following to earn 25% of the set-aside
    - number of exiting students found in the state wage file in the second fiscal quarter after exit by any amount

    OR

    - number of exiting students found in the state wage file in the fourth fiscal quarter after exit by any amount
- Earnings: Must improve the following to earn 25% of the set-aside
    - median earnings in the second fiscal quarter after exit by any amount

    OR

    - increase in earnings by any amount

    OR

    - number of students who attained the regional living wage by any amount

This model was generally unfavorable related to funding stability. All but one region and all but one college had funding reductions compared to the baseline year due to declining course enrollments and stagnant employment outcomes. Five of the seven colleges received 75% of baseline funding and one received 50% of baseline funding, creating reductions between -$6,183 and -$92,315. Only one college received 100% of their baseline funding. Four of the seven regions received 75% of their baseline funding, two received 100%, and one received 50%, a decline in funding that ranged from -$179,670 to -$1,417,451.

As in the case with the 2% Improvement Model, the Improve by Any Amount model would be adversely affected by cuts to community college funding and economic downturns.

Progress Metrics

At the February 17% Committee meeting, the group requested more detailed information on possible progress metrics that align with the Workforce Innovation and Opportunity Act (WIOA) and that align with other statewide initiatives.

WIOA-Aligned Metrics

Use of these metrics would conform to the SWP legislation, which calls for the outcome measures to be aligned with WIOA. Initially, the WIOA metric for skills-gains—which could be used to document progress—was not included in the SWP metric list. Course enrollments were included as a proxy because the federal government had not yet established what the skills-gain metrics should be for CTE programs. However, guidance was issued on this measure during Fall 2017.

For credit courses, the WIOA CTE skills-gain metric is designated as successfully completing 12 units for the first time, similar to the existing Carl D. Perkins Career and Technical Education Act of 2006 (Perkins) measure for CTE concentrators. However, the designation for noncredit courses was left up to the states. One possibility would be to recognize the attainment of 48 instructional contact hours for the first time. This figure represents the first cut-off point for tracking noncredit awards in the Chancellor's Office MIS data system, and generally falls below the units needed for completing a noncredit program of study.

Initiative-Aligned Metrics

Another possible option for the progress measures is to align with metrics used for other Chancellor's Office initiatives. For credit courses, the most viable option would be to use the Student Success Scorecard CTE Completion threshold metric (earning 8+ CTE units in courses within the same TOP2, where at least one course is non-introductory). This measure also aligns with a key momentum point for guided pathways. For noncredit courses, the most viable option would be transition from noncredit to credit courses. This metric has been adopted as part of the integrated planning for the student equity, student success, and basic skills statewide initiatives.

Financial Need

During the February meeting of the 17% Committee, the group determined that any system of weighting particular students should be simple and based on reliable data, and it should incentivize colleges and regions to close equity gaps. To this end, the Committee decided that weighting students with financial need was the top priority. However, questions were raised about the best way to define financial need based on available data. In particular, members of the Committee raised concerns that certain

student populations (e.g. DREAMers) would be excluded from financial need calculations because they may not be captured in the statewide data.

The Chancellor's Office's Management Information System (MIS) tracks the following elements, which could be included in 17% calculations, provided that colleges submit information on these data points:[1]

1) Local metric
2) Fee waivers
3) CalWORKs
4) TANF
5) SSI
6) Bog Waiver
7) EOPS
8) Federal Aid
9) CalWORKS
10) CAFYES
11) General Assistance
12) Grants
13) Scholarships
14) Work Study

Another strategy to identify students with financial needs would be to use the same formula used to calculate economically disadvantaged students for Perkins funding. This approach flags students who meet one of the following criteria:[2]

1) Awarded a Board of Governors Waiver
2) Awarded a Pell Grant
3) Identified as a CalWORKS participant
4) Identified as a participant in the Workforce Investment Act program
5) Reported as economically disadvantaged

Next Steps

The findings in this white paper will be discussed via conference calls by the end of February, resulting in the Committee making a recommendation about which data elements and models should be included in further modeling of a possible 17% incentive formula. This more comprehensive data model, which will be run for all colleges and all

[1] http://extranet.cccco.edu/Portals/1/TRIS/MIS/Left_Nav/DED/Data_Elements/SF/SF21.pdf
[2] http://extranet.cccco.edu/Portals/1/WED/CEP/PerkinsIV/PerkinsIVPartC/2015-16/CTE-Student-Identification-Process-2016.pdf

regions, will include calculations for all CTE programs. However, due to time constraints, it will still use proxy data for the progress, transfer, and job in field of study measures. The comprehensive data model will include flags for different types of institutions based on college size, urban/suburban/rural, location, size of CTE portfolio, and the proportion of disadvantaged students served. This information will be provided so that the Committee can determine whether the model is equitable across various college contexts. An analysis of the findings will be summarized in a final white paper, for discussion at the March meeting of the Committee.

Appendix

The charts below provide an example of how the same college would fare under each model.

Table 1: Points Model

Year	Course Enrollments	Points	Completers	Points	Employed Q2	Points	Employed Q4	Points	Earnings Q2	Points	Earnings Change (%)	Earnings Change (#)	Points	Living Wage (%)	Living Wage (#)	Points
10-11	154,306		1,557		3,641		3,699		7,075		12%	3,096		41%	2,737	1,122
11-12	142,542	142,542	1,450	1,450	3,440	3,440	3,440	3,440	6,580	-	19%	2,702	18,914	38%	2,503	951
12-13	144,231	144,231	1,651	1,651	3,334	3,334	3,283	3,283	6,570	-	33%	2,606	36,484	38%	2,395	910
13-14	151,225	151,225	1,619	1,619		-		-		-						
Total		437,998		4,720		6,773		6,723		-			55,398			1,861

Total Points	471,886
New Allocation	$298,057

Table 2: 2% Improvement Model

Year	Progress		Completion		Employment				Earnings					
	Course Enrollments	2% Gain	Completers	2% Gain	Employed Q2	2% Gain	Employed Q4	2% Gain	Earnings Q2	2% Gain	Earnings Change	2% Gain	Living Wage	2% Gain
10-11	154,306		1,557		3,641		3,699		$7,075		12%		41%	
11-12	142,542	No	1,450	Yes	3,440	No	3,440	No	$6,580	No	19%	Yes	38%	No
12-13	144,231	Yes	1,651	No	3,334	No	3,283	No	$6,570	No	33%	Yes	38%	No
13-14	151,225	No	1,619	Yes										

Progress	Completion
Employment	Earnings
% of Prior Allocation	50%
New Allocation	$133,700

Table 3: Improvement by Any Amount Model

	Progress		Completion		Employment				Earnings					
	Course Enrollments	Any Gain	Completers	Any Gain	Employed Q2	Any Gain	Employed Q4	Any Gain	Earnings Q2	Any Gain	Earnings Change	Any Gain	Living Wage	Any Gain
10-11	154,306		1,557		3,641		3,699		$7,075		12%		41%	
11-12	142,542	No	1,450	No	3,440	No	3,440	No	$6,580	No	19%	Yes	38%	No
12-13	144,231	Yes	1,651	Yes	3,334	No	3,283	No	$6,570	No	33%	Yes	38%	No
13-14	151,225	Yes	1,619	No										

Progress	Completion
Employment	Earnings
% of Prior Allocation	75%
New Allocation	$200,550

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