

## Understanding Graduation Rates at Cal State East Bay:

### Non-Traditional Students, Enrollment Changes and Unit Redemption Rates

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As indicated in the WSCUC document, [\*"An Explanation of the Unit Redemption Rate and Absolute Graduate Rate"\*](#), IPEDS uses a method for measuring graduation rates that is inaccurate for institutions with large populations of students who are not first-time, full-time students. Such is the case for Cal State East Bay where approximately 67% of new undergraduate students each fall are transfers and many students attend part-time (see also Essay 5 of Cal State East Bay's WSCUC Self-Study). In fact, over an eight year period, only about 13% of Cal State East Bay graduating students was in an IPEDS cohort, meaning that IPEDS considered only a small subset of the total Cal State East Bay student population to calculate graduation rate. Clearly, this small sample of Cal State East Bay students is not representative of our overall student population, and examination of this small group of students can lead to graduation rate conclusions that are inaccurate representations of the overall student success rate at our institution.

In addition, typical metrics for transfer students usually only consider full-time students who begin in Fall term and who transfer after attaining upper-division status. At Cal State East Bay, approximately 20% of transfer students attend part-time, and more than 30% start in a term other than Fall (Essay 5 of Cal State East Bay's WSCUC Self-Study). While lower-division transfer students currently make up a small proportion (2%) of the transfer students at Cal State East Bay, between 2007 and 2010 lower-division transfers made up 20% or more of the total transfer student population. Thus in many regards, our transfer students, like our freshmen, are a non-traditional group for which typical metrics are inappropriate and unreliable.

In 2013, Cal State East Bay volunteered to be a pilot institution for the WSCUC Undergraduate Student Success and Graduation Rate Dashboard project. The data reported here are from participation in that pilot effort.

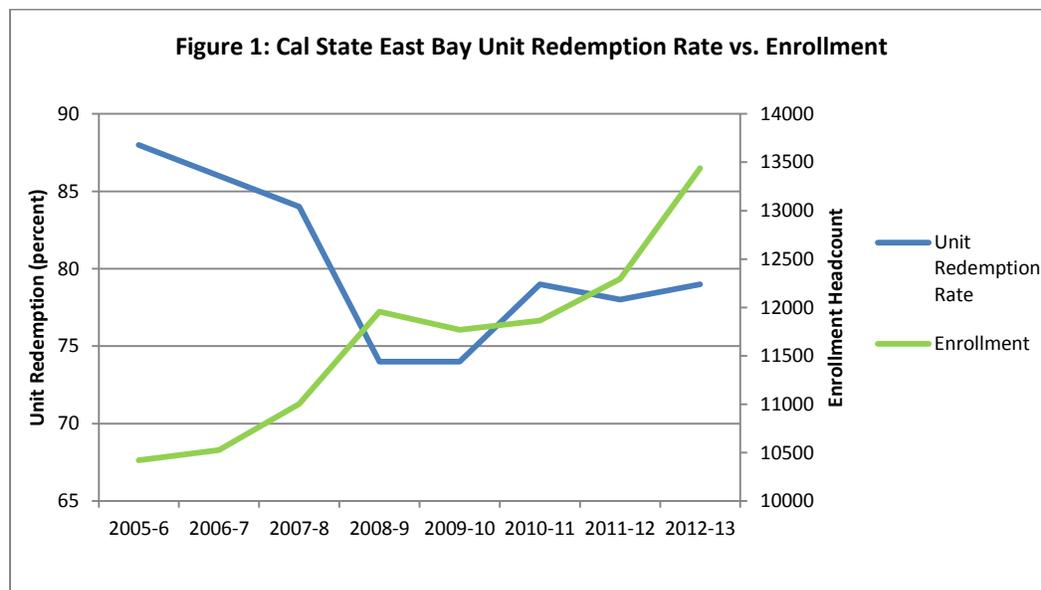
Unit Redemption Rate (URR) – As defined by WSCUC, the URR is a completion measure that may be applied to any population of students including first-time first-year, transfer (whether upper-division or lower-division status), full-time, and part-time students. This metric measures the proportion of instructional units taken by matriculated students that are eventually counted toward or redeemed for a degree. If a student takes course credits and then leaves an institution without finishing a degree, then those units are not redeemed for a degree, thereby reducing the URR for the institution. One important characteristic about URR is that it is not tied to time taken for degree completion; if a part-time student takes longer than average to complete a degree, the units taken will still be redeemed when the degree is conferred. However, URR is affected by two important factors--one of which involves students who drop out, and the other which involves year-to-year enrollment fluctuations.

When a student stops enrolling (drops out), the units earned will not be redeemed for a degree and will therefore be a liability borne and accumulated by the institution. If a student

drops out after taking very few units, there will be less liability for the institution than if a student takes many units before dropping out. Therefore, how many units a student takes before leaving an institution is an important factor.

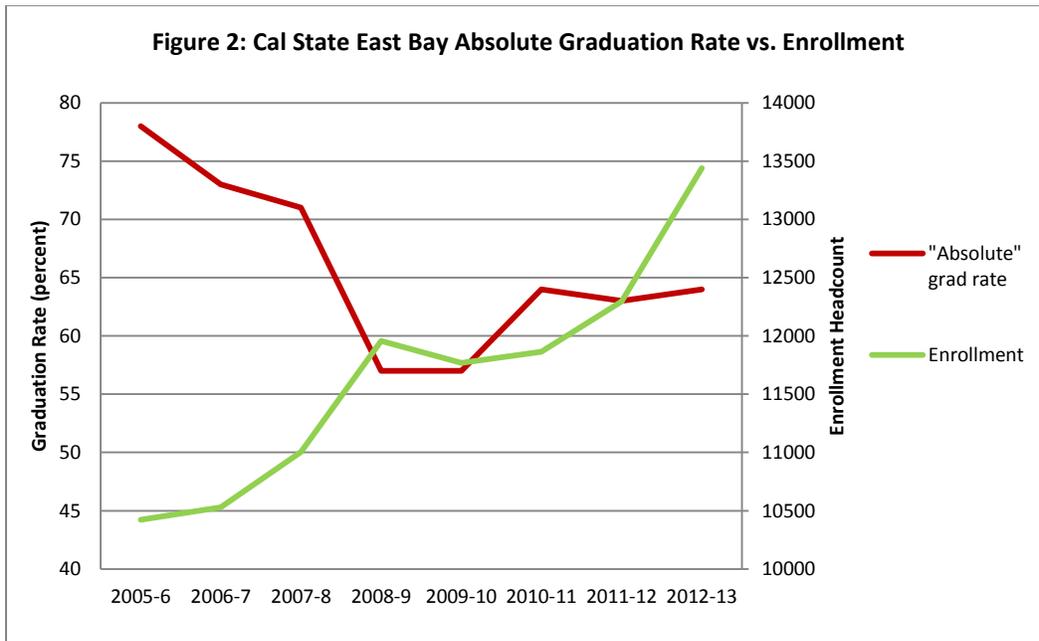
Enrollment fluctuations also affect URR because changes in enrollment will affect the number of units that may be taken in a given year and then redeemed for degrees. That is, the measure is most accurate when the enrollment of an institution is in “steady state” because then the number of instructional units taken by students in a given year should equal the number of units redeemed by graduating students each year (if no other changes are taking place). If enrollment is *decreasing*, then all else being equal, during the years of decreasing enrollment the number of units being redeemed will exceed the number being taken because the number of graduating students will exceed the number of newly admitted students. This will *artificially inflate* the URR for at least a couple of years. Conversely, if enrollment is *increasing*, then the number of newly admitted students and the numbers of units they are taking will exceed the number of units being redeemed by the conferring of degrees. This will *artificially decrease* the URR for at least a couple of years.

An examination of the Unit Redemption Rate data for Cal State East Bay for the period of 2005 to 2013 reflects this artificial influence of changes in enrollment (Figure 1). During the period of steep enrollment increase from 2006 to 2008, the URR decreased dramatically. One can infer that the majority of this decrease in URR was due to increasing enrollment because during the period of 2008 to 2010, when enrollment stayed fairly consistent, URR also leveled off. However, an intriguingly different pattern appears from 2010 to 2013 when enrollment again increased dramatically; all things being equal, one would have expected URR to decrease, however URR increased. This indicates an improvement has occurred in URR since 2010 (independent of enrollment growth) which is also borne out by the pattern seen in two, three and four year URR (Table 1). Overall, the eight year total URR for Cal State East Bay is 80%, meaning that approximately 80% of the units taken by students leads to completion of a degree (Table 1).



Absolute Graduation Rate (AGR) – The new methodology introduced by WSCUC also includes a calculation of graduation rate that is not dependent on a particular period of time. The AGR is based on the URR with the inclusion of a constant in the denominator based on the average number of units a student who drops out completes before dropping out (see “[An Explanation of the Unit Redemption Rate and Absolute Graduate Rate](#)” for the AGR formula). Like the URR, the AGR does not operate according to a predetermined period of time. So, unlike typical graduation rates, the AGR is not a four-year, six-year, or eight-year graduation metric. Students may be full-time, part-time, transfer or first-time freshmen in this metric. However, AGR is also strongly affected by changes in enrollment.

Because AGR is based on URR, the same pattern is seen between AGR and enrollment as seen between URR and enrollment for Cal State East Bay (Figure 2). That is, AGR fluctuates largely because the enrollment of East Bay is not in “steady state”. Also like URR, the AGR improves *despite* increasing enrollment between 2010 and 2013. Because increasing enrollment should depress AGR, we interpret this to mean that the graduation rate is improving to such an extent that it swamps the artificial decrease in AGR which should occur due to enrollment increases. Further support of this improving graduation rate may be seen in the two, three, four, and five year AGRs (Table 1). Overall, the eight year total AGR for Cal State East Bay is 65%, which is significantly greater than the IPEDS 6-year graduation rate average of 43% for our institution.



In conclusion, for Cal State East Bay, URR and AGR are much better indicators of completion performance than IPEDS metrics or other more traditional measures of graduation rate because of the large proportion of “non-traditional” students at our institution. A close examination of URR and AGR in relation to enrollment changes indicates that positive changes in completion performance have occurred since 2010. We attribute these positive changes to the

concerted efforts of the University to establish exemplary academic and co-curricular programs and high impact practices that support the success of all of our students (Essay 5 of Cal State East Bay's WSCUC Self-Study for more information about student success programs and practices).

Table 1.

INSTITUTIONAL BALANCE SHEET SUMMARY									
COMPLETION-GRADUATION RATIO									
Institution: CSUEB	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	8 year Total
<b>Enrolled Students</b>									
Headcount	10,421	10,528	11,003	11,958	11,769	11,863	12,295	13,439	
Completed Annual Units	324,788	326,192	337,457	370,034	374,478	368,127	395,925	417,283	2,914,283
<i>Ave units per Student</i>	31	31	31	31	32	31	32	31	
<b>Bachelor Degree Recipients</b>									
Headcount	2,384	2,301	2,354	2,287	2,365	2,479	2,561	2,705	19,436
Completed Graduation Units	287,430	279,020	283,064	273,900	275,442	290,240	309,699	330,260	2,329,055
<i>Ave Per Student</i>	121	121	120	120	116	117	121	122	120
<i>Ratio - Headcount</i>	23%	22%	21%	19%	20%	21%	21%	20%	
<b>Unit Redemption Rate</b>	<b>88%</b>	<b>86%</b>	<b>84%</b>	<b>74%</b>	<b>74%</b>	<b>79%</b>	<b>78%</b>	<b>79%</b>	<b>80%</b>
<i>URR 2 yr ave annual units/current grad units</i>		86%	85%	77%	74%	78%	81%	81%	
<i>URR 3 yr ave annual units/current grad units</i>			86%	79%	76%	78%	82%	84%	
<i>URR 4 yr ave annual units/current grad units</i>				81%	78%	80%	82%	85%	
<i>d (ratio of dropout units to graduating units)</i>	0.469	0.466	0.470	0.472	0.486	0.483	0.468	0.463	0.472
<b>Calculated "absolute" graduation rate</b>	<b>78%</b>	<b>73%</b>	<b>71%</b>	<b>57%</b>	<b>57%</b>	<b>64%</b>	<b>63%</b>	<b>64%</b>	<b>65%</b>
<i>AGR 2 yr ave annual units/current grad units</i>		74%	73%	62%	58%	63%	67%	67%	
<i>AGR 3 yr ave annual units/current grad units</i>			74%	65%	61%	63%	67%	71%	
<i>AGR 4 yr ave annual units/current grad units</i>				66%	64%	66%	68%	72%	
<i>AGR 5 yr ave annual units/current grad units</i>					65%	68%	71%	74%	
<b>IPEDS 6-year graduation rate</b>	<b>43%</b>	<b>40%</b>	<b>44%</b>	<b>48%</b>	<b>45%</b>	<b>43%</b>	<b>41%</b>		<b>43%</b>
IPEDS graduates	289	276	331	320	379	297	361		2,253
Cohort size	669	692	746	672	840	686	881		5,186
Percent of graduating cohort	12%	12%	14%	14%	16%	12%	14%		
Units taken by dropouts (optional) =	143,981								
# of dropouts (optional) =	2,546								
Average =	56.6								
Assumed average (if not provided) =									
<b>Transfer Students</b>									
Headcount	436	412	415	510	441	382	366	336	
Completed Units Transferred	15,221	17,464	16,366	18,481	16,461	15,560	15,151	14,713	
<i>Ave Per Student</i>	35	42	39	36	37	41	41	44	
<b>Adjusted Unit Redemption Rate</b>	<b>93%</b>	<b>91%</b>	<b>89%</b>	<b>79%</b>	<b>78%</b>	<b>83%</b>	<b>82%</b>	<b>83%</b>	
<b>Adjusted "absolute" graduation(+transfer) ra</b>	<b>87%</b>	<b>82%</b>	<b>79%</b>	<b>64%</b>	<b>63%</b>	<b>70%</b>	<b>68%</b>	<b>69%</b>	