



Incorporating Equity into Funding Policies

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Student Success Through Applied Research Lab

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Overview

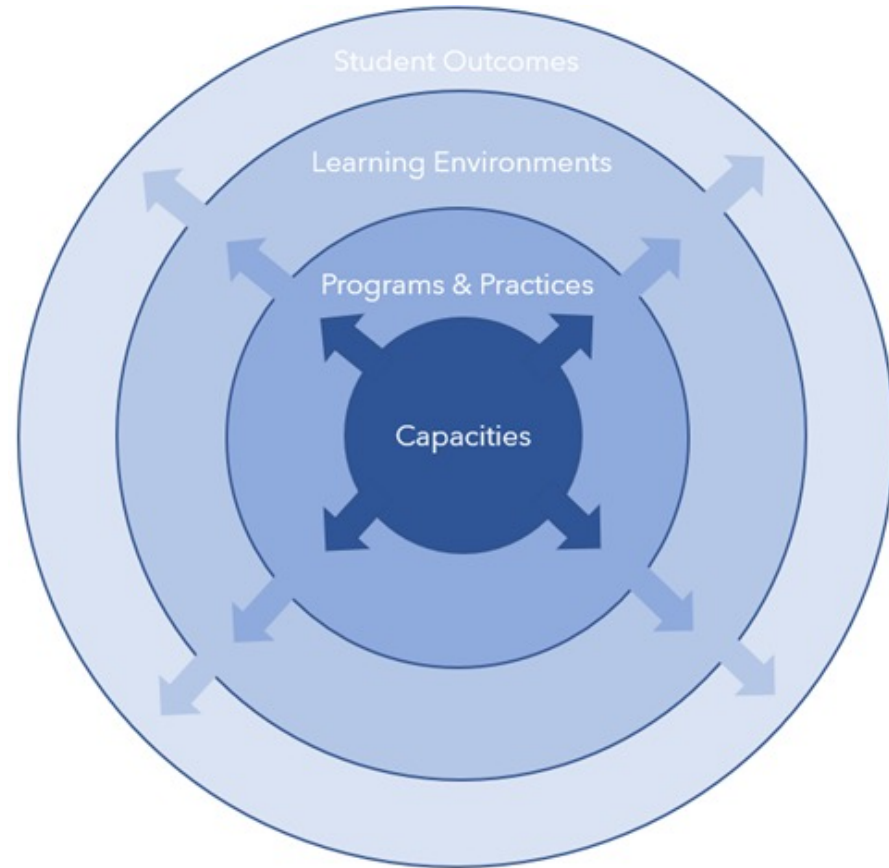
- Part I: Background and Definitions
- Part II: Data, Analysis, and Policy Examples
- Part III: Design Principles in Practice
- Part IV: Summary

Part I: Background and Definitions



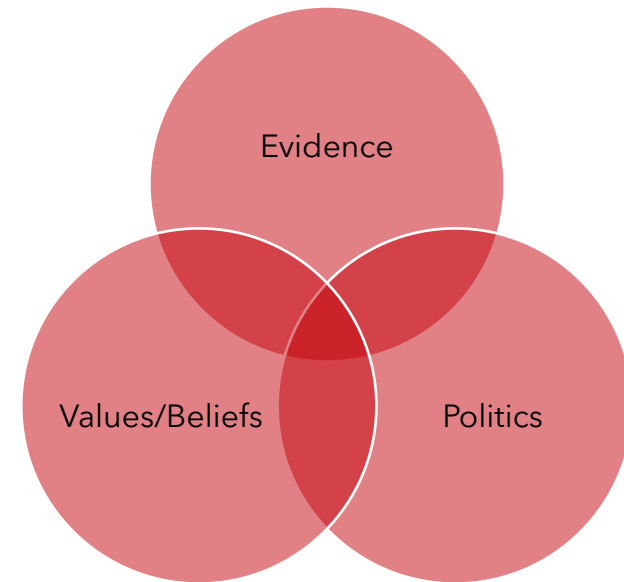
Background

- Ongoing national conversations about equity-based funding in higher education.
- Growing research consensus that money matters for improving student outcomes.
- Colleges with the least resources enroll the most disadvantaged students.
- Making funding models more “equitable” could improve outcomes and help close gaps for most disadvantaged students.



Definitions

- Equality = when two or more social units have the same quantity of (or access to) a resource
- Equity = when two or more social units have the necessary quantity of (or access to) a resource
- Equity deals with disparities between groups and efforts to mitigate their harmful effects (Flores, 2022)
- Identifying and resolving inequities is not simply analytical - it is also driven by beliefs, values, and politics



Definitions

- For policy purposes, our focus is on **state/local appropriations** and **federal grants**
- Tuition revenue, financial aid, or other revenues are beyond our scope today
- And institutional practices are also beyond our scope

State/local allocation models	Federal allocation models
Base plus	Research grants
Input-driven formula	Program grants
Performance-based formula	Formula grants
Institutional request	Matching grants
Special purpose funding	Congressionally-directed spending

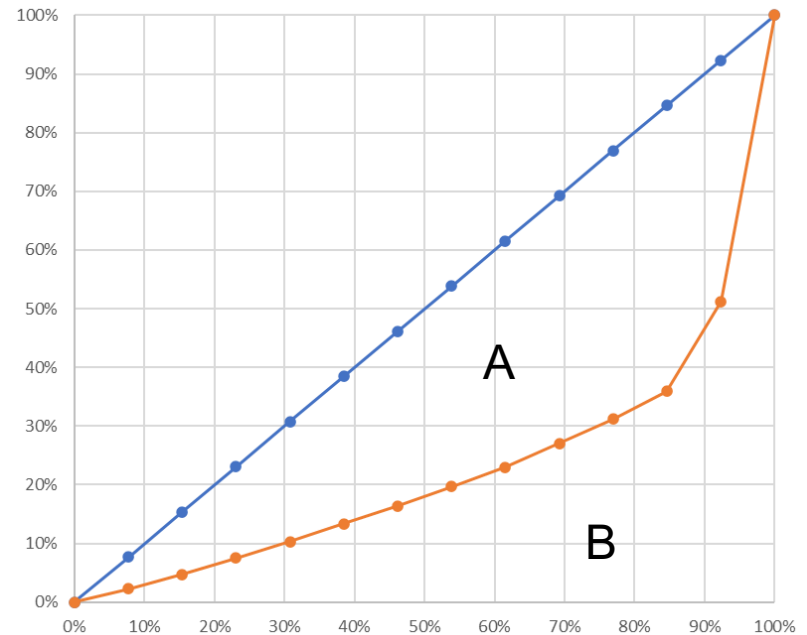
Part II: Data, Analysis, and Policy Examples

Assumptions

- Data and resources:
 - States will have their own unique data infrastructure
 - Analysts will have discretion over methods and visualizations
 - Certain finance measures will be more important than others
 - Analysts will have time and resource constraints
- I will use IPEDS data unless otherwise noted
- Examples are from recent reports and I can share replication files/data
- Unit of analysis should be institution-level (not student-level)
- Comparison groups matter greatly (i.e., comprehensives vs. research universities)

Gini index

- How equal are funding levels at institutions in my state?
- Gini index:
 - Standardized metric where 0 = perfect equality, 1 = perfect inequality
 - Gini index of US income in 2020 was [0.397](#)
- Can calculate this in Excel or Stata
- The following calculates the Gini index of state appropriations in the University of Wisconsin System, which could be monitored over time, against peers, within Carnegie Groups, etc.



$$Gini\ Index = \frac{A}{A + B}$$

Gini index

$$\text{Gini Index} = \frac{A}{A + B} = \frac{0.275}{(0.275 + 0.225)} = 0.550$$

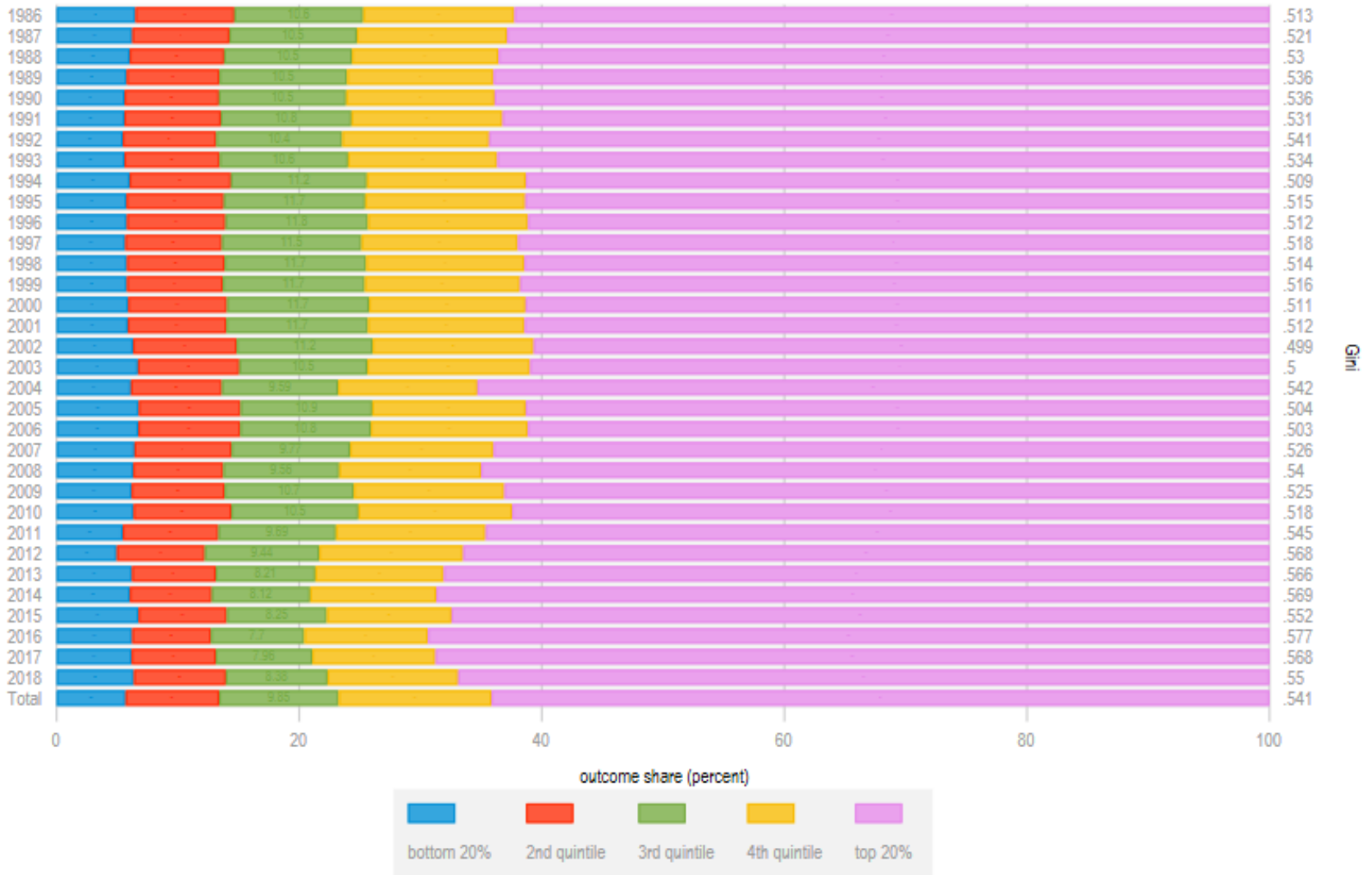
Sum of B = 0.225

A = 0.5 - B = 0.275

Institution	Appropriations	% of institutions (I)	Cumulative % of institutions	% of appropriations	Cumulative % of appropriations (App)	Area under Lorenz curve (B)
0	0	0	0%	0%	0%	
1	17,600,000	8%	8%	2%	2%	0.001
2	18,900,000	8%	15%	2%	5%	0.003
3	21,700,000	8%	23%	3%	7%	0.005
4	22,100,000	8%	31%	3%	10%	0.007
5	23,500,000	8%	38%	3%	13%	0.009
6	23,700,000	8%	46%	3%	16%	0.011
7	25,600,000	8%	54%	3%	20%	0.014
8	25,800,000	8%	62%	3%	23%	0.016
9	31,200,000	8%	69%	4%	27%	0.019
10	32,700,000	8%	77%	4%	31%	0.022
11	36,800,000	8%	85%	5%	36%	0.026
12	119,000,000	8%	92%	15%	51%	0.034
13	379,000,000	8%	100%	49%	100%	0.058

$$B = I_i * \left(\frac{App_i + App_{i-1}}{2} \right)$$

Gini index

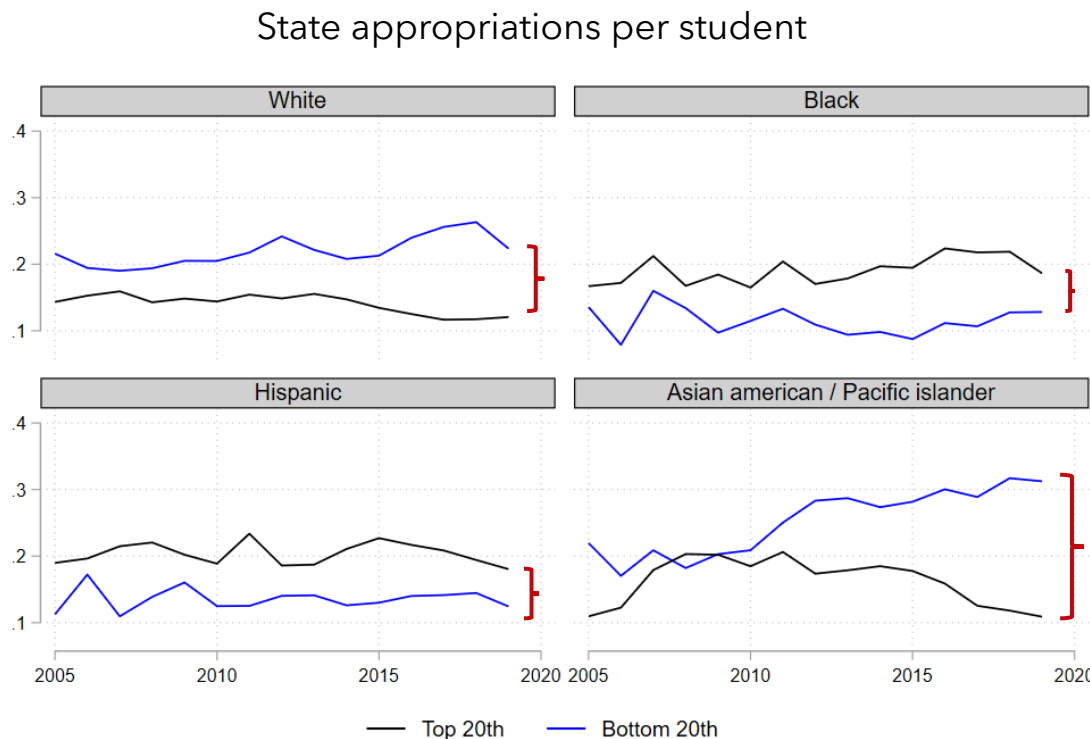


Distribution analysis

- How equitable are funding systems relative to student characteristics?
- There are fewer standards for analyzing distributions, but three techniques are promising:

Technique 1: Percentile Gaps

Calculate funding for the top quantile (20%) of colleges and show how many students enroll. Compare to the bottom quantile (20%) to measure gaps.

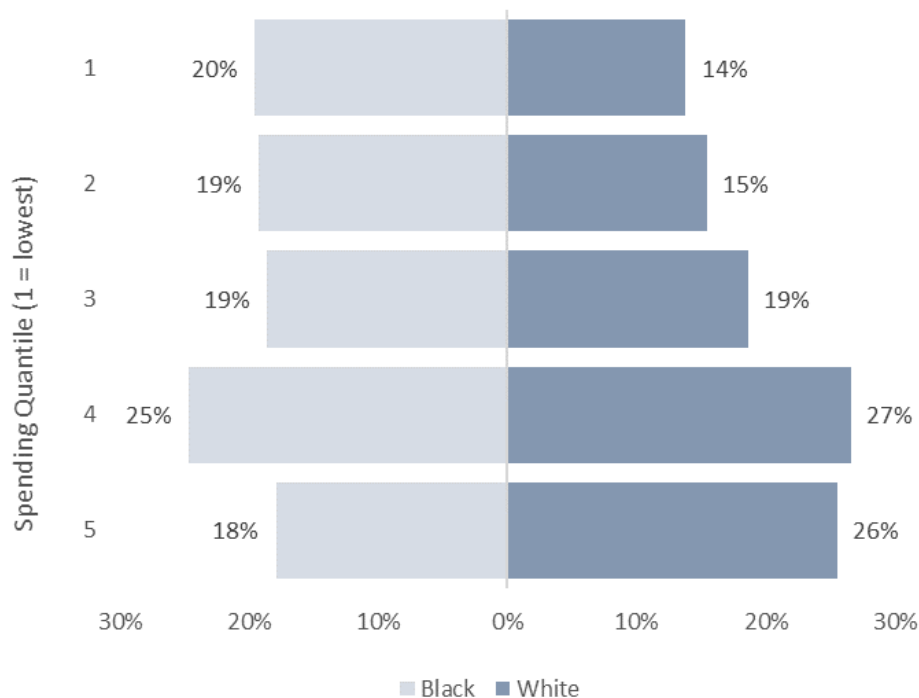


In California, community colleges:

- Larger shares of Black and Hispanic students attend colleges in the top "state approps" quintiles
- Gaps are growing over time for AA/PI students

Technique 2: Distribution Shares

Calculate quantiles of financial resources and then identify the share of Black vs. white students attending colleges in each quantile.

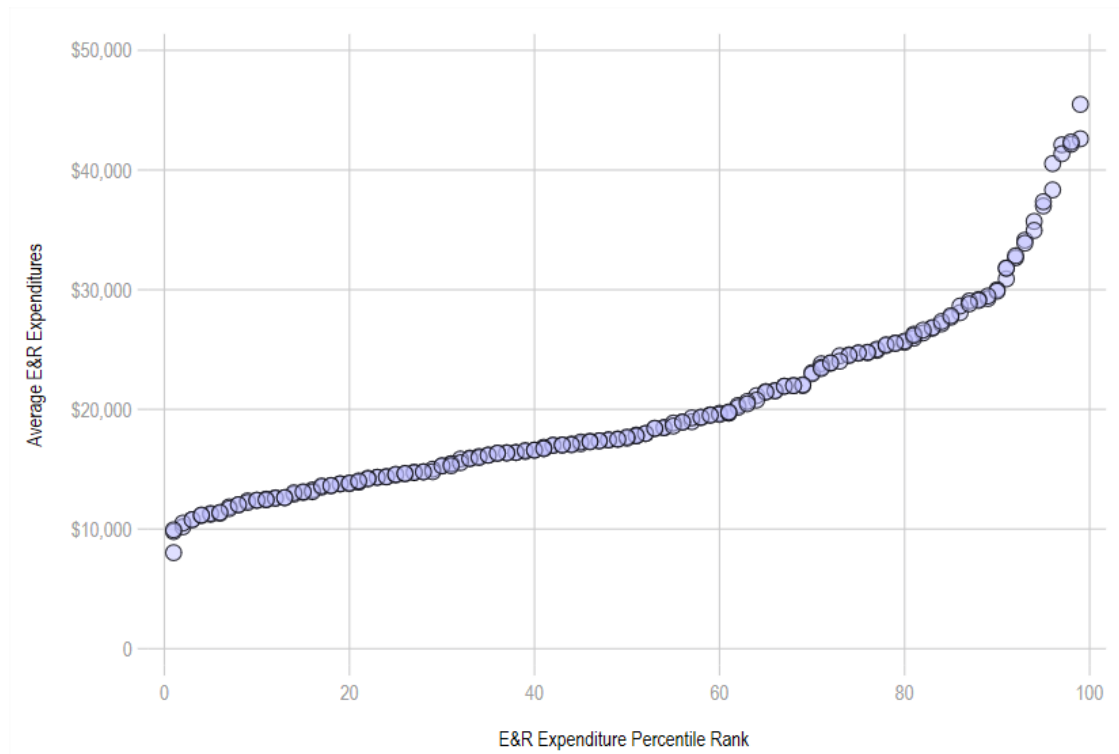


Among US public research universities:

- *53% of white students attend colleges in the highest two spending quantiles*
- *43% of Black students attend colleges in the highest two spending quantiles*

Technique 3: Percentile Ranks

Array institutions according to percentile rank for a given finance indicator (on horizontal axis). .



Among US public research universities:

- *The top 10th percentile spend nearly 5x more than the bottom 10th percentile.*

Exercise 1

- 15 minutes to work/brainstorm in small groups
- 15 minutes to share out
- Goal:
 - Identify promising data sources, analytical techniques, visualization ideas, or other activities to measure (and communicate) unequal or inequitable funding allocations.
- Sharing out:
 - How might data and analysis be used/misused in efforts to conceptualize, measure, monitor, or address funding inequities in your state?
 - What analytical decisions, data limitations, or other concerns might arise when conducting this work?

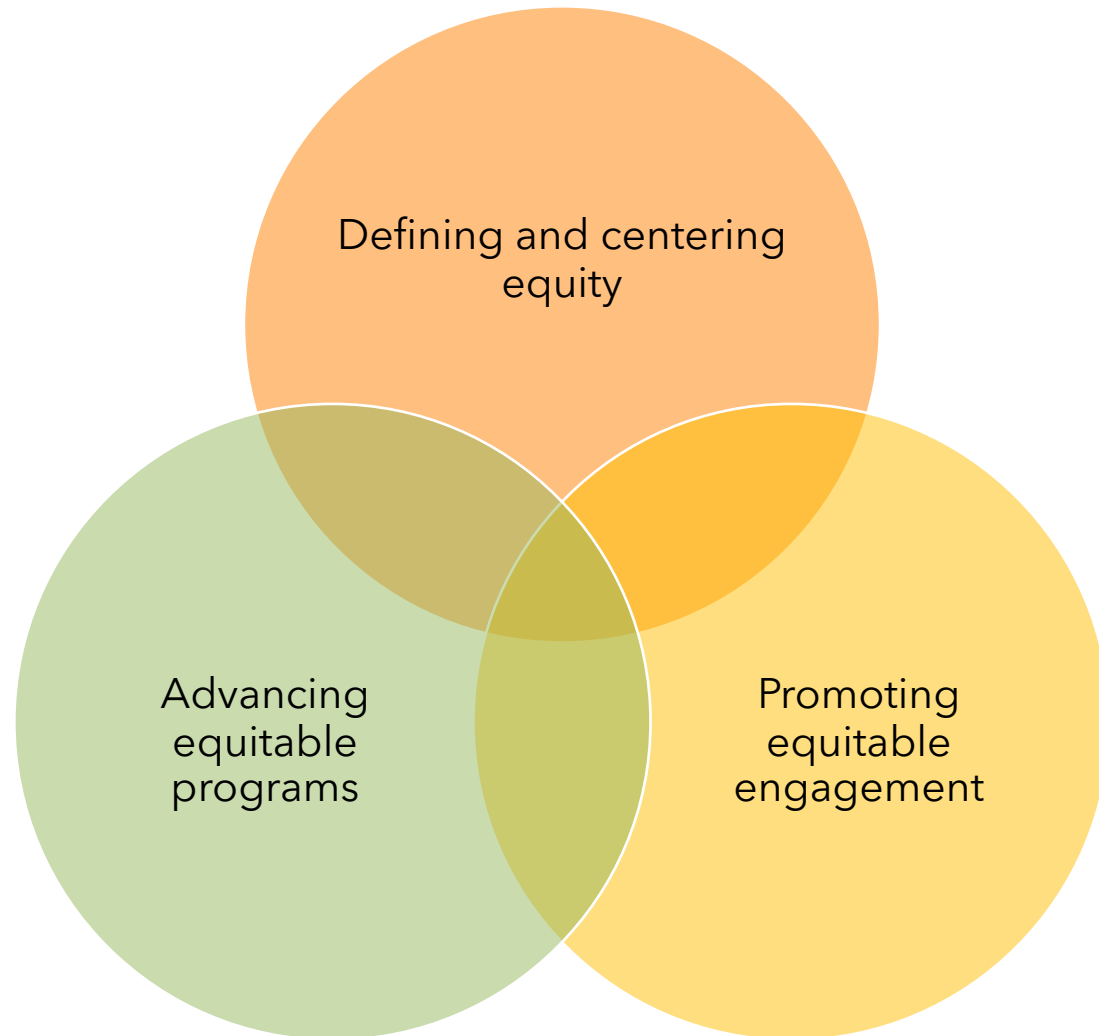
Part III: Design Principles in Practice



Design Principles for Equity-Based Funding Policies

- At your tables are several “design principles” our team believes can be useful in rethinking funding allocation models
- No single principle alone will “solve” inequities, but in combination and over time we believe can increase the chances of making funding systems more equitable
- These principles are designed to be flexible enough to meet each state’s unique context and history, with varying degrees of political will/importance
- These principles can also apply to federal, local, or even institutional allocation models. But for now think of them at the state level and in light of our funding allocation models from earlier (e.g., base plus, formulas, etc.)

Design Principles for Equity-Based Funding Policies



Design Principles for Equity-Based Funding Policies

Explicitly address economic inequity.

Explicitly address racial/ethnic inequity.

Maintain fidelity to equity goals.

Avoid unnecessary administrative burdens.

Account for unequal institutional capacity.

Have funding be substantial, sustained, and stable.

Promote public accountability.

Involve affected stakeholders in policy design/reform process.

Acknowledge value of professional autonomy and self-determination.

Promote organizational learning and positive change.

Exercise 2

- 15 minutes to work/brainstorm in small groups
- 15 minutes to share out
- Goal:
 - Discuss how various “design principles” might be used in your state as part of broader strategies to promote equity in funding allocation models.
- Sharing out:
 - Identify current examples of states already implementing these (or other) equity principles.
 - Recall the “values/beliefs, evidence, and politics” framing from earlier. What sensitivities do you anticipate running into when applying an equity lens to funding allocation models?

Summary

- Data and analysis can help apply an equity lens to funding allocation models and policies shaping them.
- Analysts have “soft power” to influence policy conversations by applying an equity lens to resource allocation.
- A more equitable allocation of scarce financial resources should not only help improve student outcomes at under-resourced institutions, but should also help close equity gaps in student outcomes.
- Closing equity gaps is not only good for education and for promoting equity, but also for promoting full inclusion in the labor market and workforce.
- Political polarization, structural racism, and power dynamics are the largest forces that have shaped our current systems and undoing these will take long-term and deliberate effort.

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