

# **Environmental Scan: Data to Inform the Educational Master Plan**

**A collaborative project from  
Chabot's Office of Institutional Research**

**Presented by Dr. Cynthia Gordon da Cruz**



# Acknowledgements

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- **Thank you to OIR for the HOURS of work you've put into this. To...**
  - Dr. Na Liu for your leadership in data querying, collection, and graphs
  - Dr. Indra Liauw for data querying
  - Svetlana Tkachenko for data culling and visualizations
  - Tommy Chan for data culling
- Thank you to LPC Institutional Research for your collaboration.
- Thank you to Director Kessler, the EMP taskforce and Signature Solutions Corporate Results (consultants) for your feedback and support.

# Agenda

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- Purpose of the Environmental Scan & Educational Master Plan (EMP)
- Chabot Mission Statement
- Reflection Questions/What to look for
- External Environment (outside the college)
  - e.g., The World: Global Warming and Climate Change; Covid 19; Policy Environment; Future Employment Sector Projections; Alameda County Population Trends; Feeder District High schools
- Internal Environment (inside the college)
  - e.g., Student Demographics: Who are our students and where do they live?; Student Learning Outcomes: Leading Indicators (Course Success Rates, Retention, Guided Pathways Momentum Points and Transfer English/Math); Lagging Indicators (Certificates, Degrees, Transfers, Employment Outcomes)
- Small Group Break Outs: Re-visit the Reflection Questions

# Purpose of Environmental Scan

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- What is the purpose of an Environmental Scan?
  - An environmental scan is a HUGE data gathering project that looks at the internal and external factors that could influence how to strategize, plan, and carry out policies and practices in support of an institution's mission. The data is meant to answer questions like:
    - How might our student population or the job market change in the coming years (so we can think about things like how to support students in career exploration and readiness, or by offering certificate/degrees that respond to industry demand)?
    - How much preparation are our local high school students getting in math, English and Science (so we can be thinking about instructional supports and pedagogy that might be needed at Chabot to be a “student-ready” college)?
    - What are the poverty levels/educational attainment levels/etc. in our service area (so we can think about student services/how to address basic needs)?
  - The data from the environmental scan is used to inform the college's Educational Master Plan.

# Purpose of an Educational Master Plan

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- What is the purpose of an Educational Master Plan (EMP)?
  - To advance a college's mission, consistent with the institution's values and vision
  - To develop longer-term strategies that guide programs, services and college operations

# Chabot Mission Statement

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- We are a dynamic, student-centered community college that serves the educational, career, job skills, and personal development needs of our community. We provide culturally responsive, sustaining, and revitalizing learning and support services driven by a goal of equity. Building upon students' strengths and voices, we empower students to achieve their goals and lead us towards an equitable and sustainable world.

*(Draft mission: developed based on a college-wide collaborative process led by the EMP Task Force including Flex Day, surveys, senates, and PRAC. Recommended to President, pending approval.)*

# Strategic Plan vs Educational Master Plan

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- Historically, the EMP has been a 5-10 year long-term planning document
- Strategic Plan is a three-year shorter-term planning document
- Both work together to advance the college's mission

# Strategic Plan vs Educational Master Plan

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- The EMP Taskforce will build upon the foundational work of the strategic plan goal, objectives, and strategies to formulate objectives for the new EMP.
- Later date: Review the strategic plan objectives and ask for campus feedback on how to adapt for the EMP.
  - For now, an abbreviated reminder of the collaboratively developed Strategic Plan Objectives:
    1. Provide frameworks for both guided exploration and clear navigation to students' educational goals
    2. Utilize high impact teaching strategies and learning supports
    3. Improve equitable outcomes
    4. Develop an integrated Planning and Budget Model
    5. Foster a connected and engaged community
    6. Implement technological solutions

# Reflection Questions

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**Keeping our college mission\*, the strategic plan objectives\*\*, and your day-to-day work in mind:**

- 1. What ideas/data apply to your day-to-day work? What ideas do the data point(s) give you for how you might do your work more effectively?**
- 2. What ideas/data could you use in your planning for specific discipline, department, or service-area initiatives?**
- 3. What ideas/data do you believe are most important to consider as we make long-term plans and over-arching goals (design the EMP) for the college?**
- 4. Looking across all/most of the ideas/data in this ppt, what story does the data tell?**

***\*Mission:** We are a dynamic, student-centered community college that serves the educational, career, job skills, and personal development needs of our community. We provide culturally responsive, sustaining, and revitalizing learning and support services driven by a goal of equity. Building upon students' strengths and voices, we empower students to achieve their goals and lead us towards an equitable and sustainable world.*

***\*\*Strategic Plan Objectives:***

- 1. Provide frameworks for both guided exploration and clear navigation to students' educational goals*
- 2. Utilize high impact teaching strategies and learning supports*
- 3. Improve equitable outcomes*
- 4. Develop an integrated Planning and Budget Model*
- 5. Foster a connected and engaged community*
- 6. Implement technological solutions*

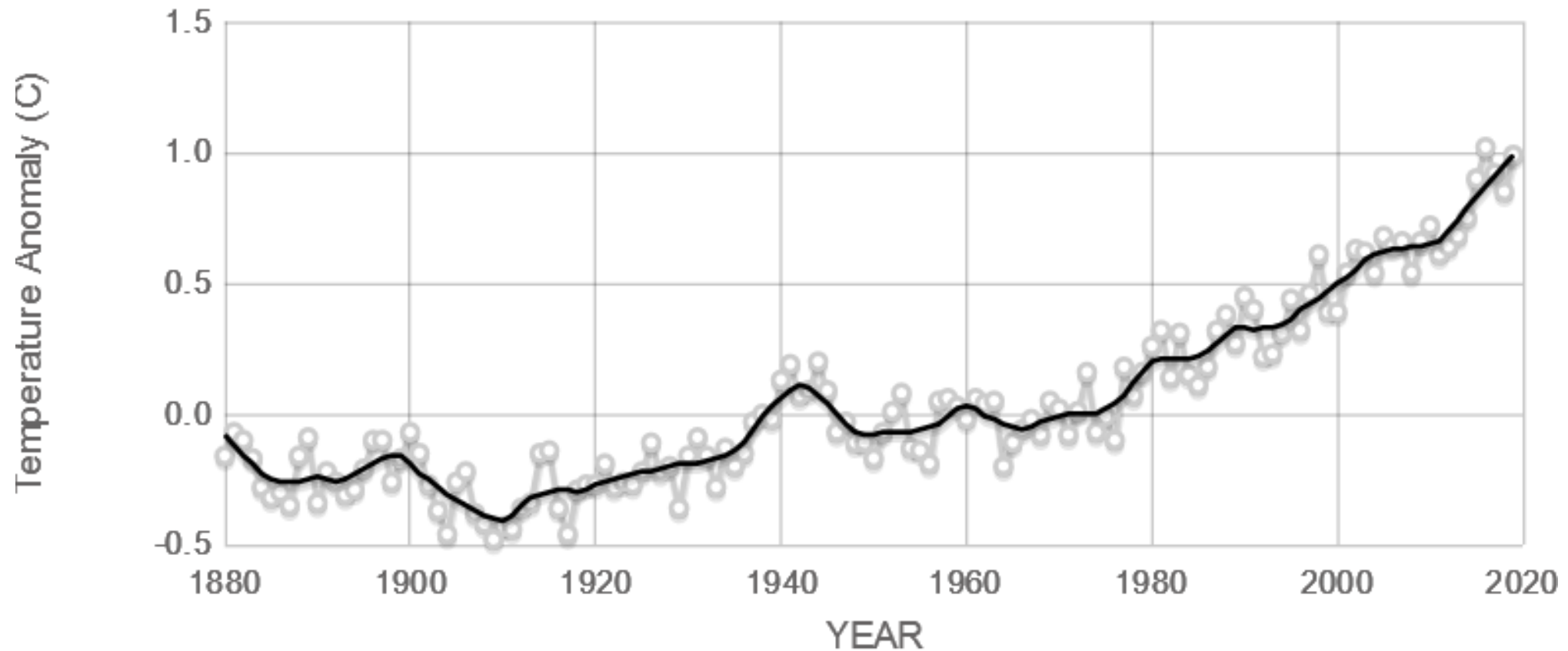
# External Environment Data

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- The World: Climate Change and the Climate Gap
- Covid 19
- Policy Environment
- Future Employment Sector Projections
- Alameda County Population Trends
- Feeder District High schools

# External Environment: The World

## Global Land-Ocean Temperature Index



Source: [climate.nasa.gov](https://climate.nasa.gov)

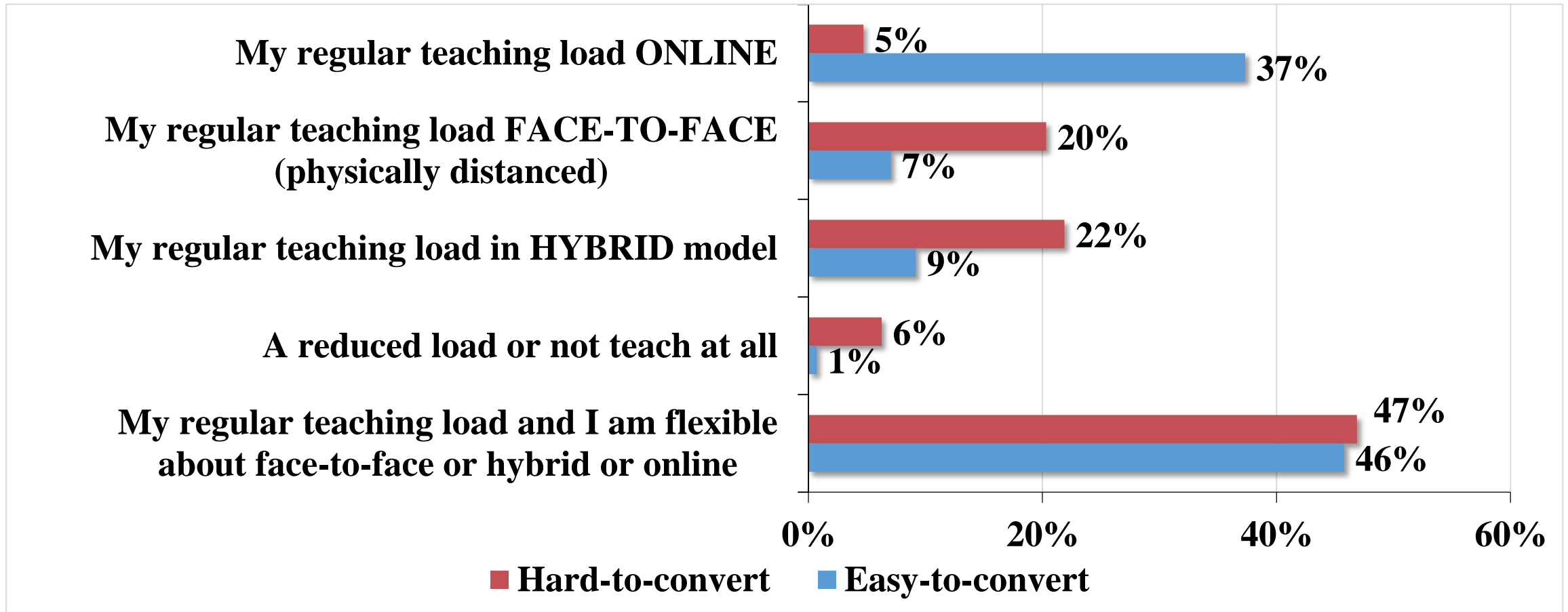
# External Environment: The World

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- Chabot is committed to equity: climate change leads to a climate gap.
- Climate crisis has disproportionate and unequal impact on people of color and those from lower socio-economic statuses
- Health Consequences
  - Higher rates of illness and death due to extreme heat and heatwaves
  - More exposure to air pollution and dirtier air
- Economic Consequences
  - Impacted by increased cost of basic necessities (food, electricity, water costs increase due to climate change)
  - Tourism and agriculture industries face job loss or more dangerous job conditions due to climate change (and more low-income and people of color are employed in these jobs)
  - Higher costs for insurance to protect against natural disasters that are increasing due to climate change

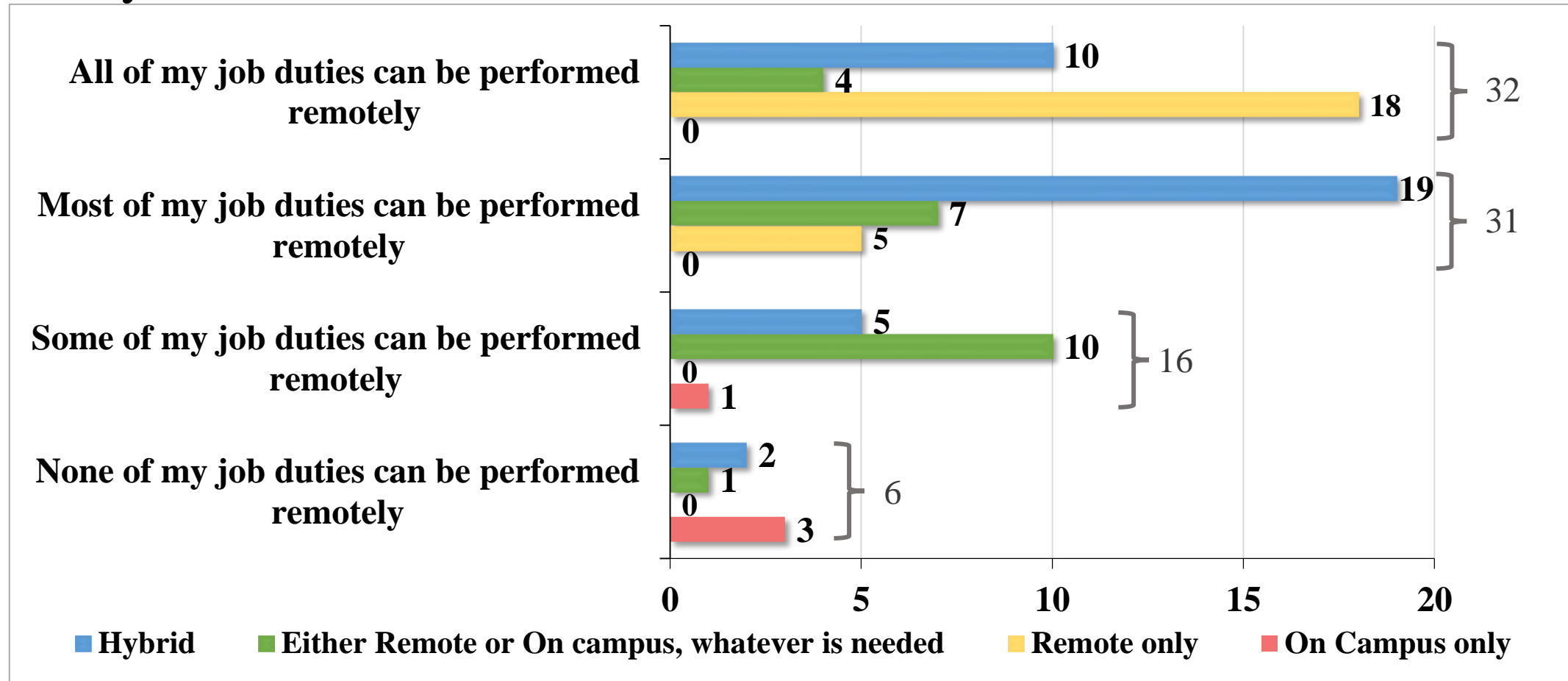
# External Environment Covid 19: Faculty Survey

Assuming the state & local shelter-in-place order is removed or modified to permit face-to-face instruction AND Chabot is able to enact protective guidelines, in Fall 2020, I want to teach ...



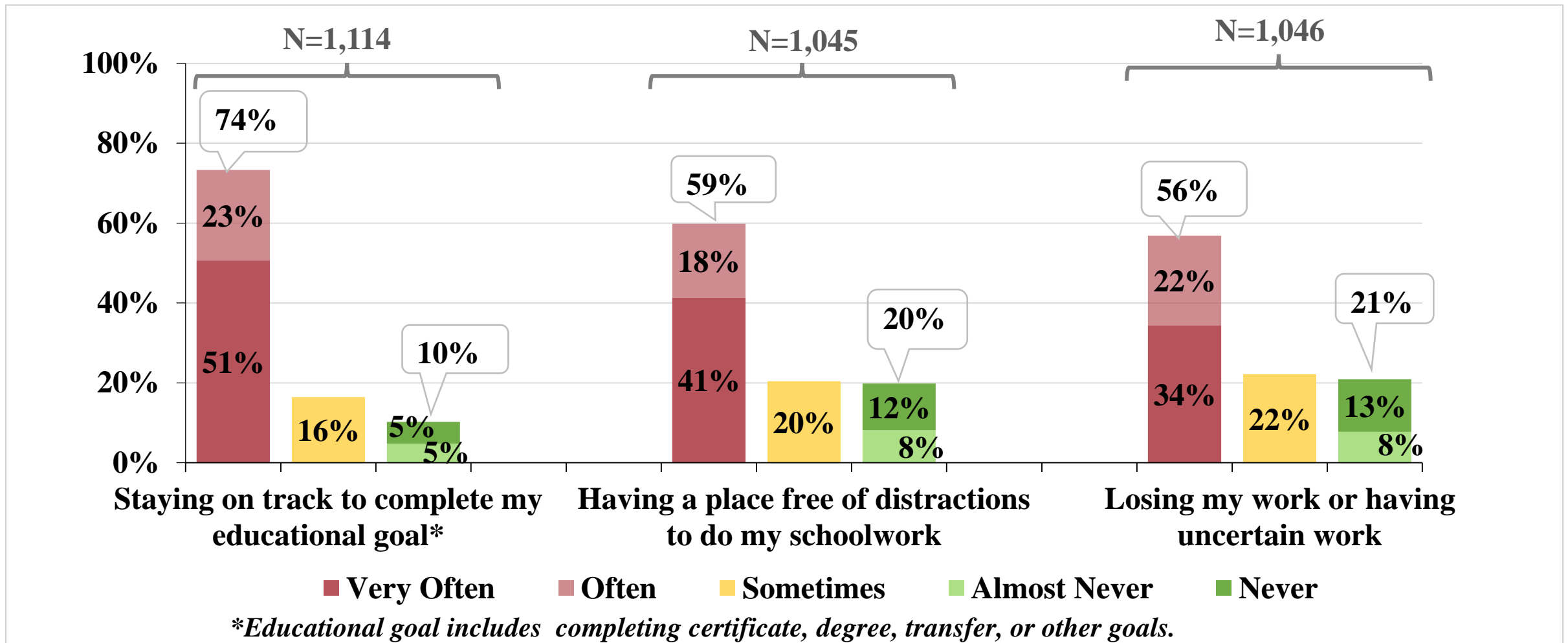
# External Environment Covid 19: Classified Professionals Survey

Work Preference in Fall 2020 based on whether Job Duties can be performed remotely:

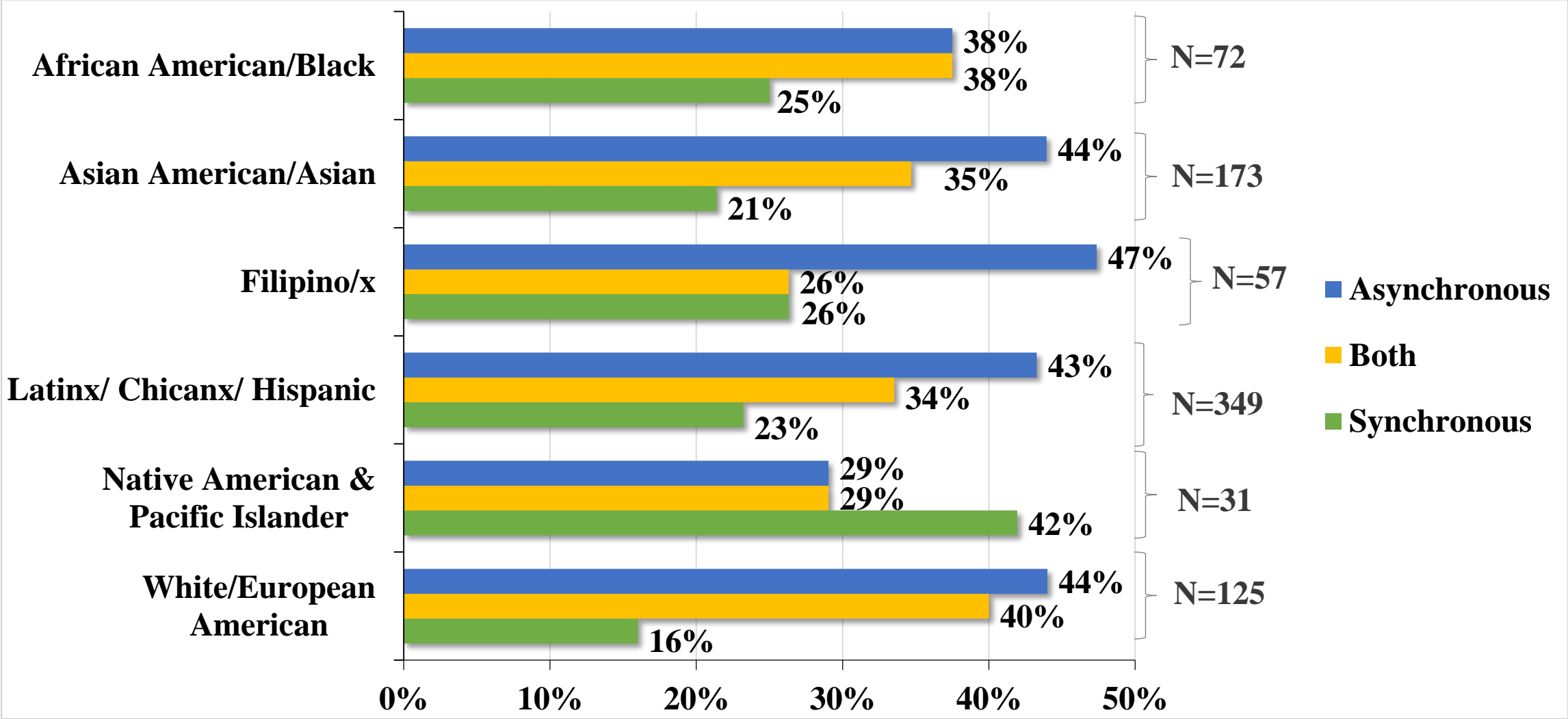


# External Environment Covid 19: May Student Survey

## Students' Top Three Worries in Relationship to Covid-19



# May Student Survey : Students' Preferences for Asynchronous Modalities Disaggregated by Race/Ethnicity



# External Environment: Example Statewide Policies

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- AB 705
  - Legislation that ensures students have access to transfer-level English, Math and credit ESL
- Guided Pathways
  - Framework for designing college practices and policies that revolve around: 1) clear curricular pathways to further education and employment, 2) helping students choose and enter pathways, 3) helping students stay on their path & 4) ensuring that learning is happening
- SCFF
  - “Student Centered” Funding Formula: how our college will be funded when “hold harmless ends”. Consists of: 1. Base Allocation—Enrollments, 2. Supplemental Allocation—Counts of low-income students and 3. Success Allocation—Student outcomes
- Student Equity and Achievement Plan
  - Equity plans focus on boosting outcomes (access; retention; completion of transfer-level English/Math; degrees and certificates awarded; and transfers to 4-year institutions) for disproportionality impacted student populations.
- Vision for Success
  - Chancellor’s office requires all CA CCs goal-set for the following outcomes: Completions, Transfers, Reducing Unit Accumulation of Associate Degree Earners, Workforce-Related, and Reducing Equity Gaps

# External Environment: Employment Sector Projections...Covid 19

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- “Plan Bay Area” makes projections for **employment**, populations, and households for the nine counties of the SF Bay Area region
- Most recent publication: Nov 2018
- Obviously, employment sector projections are likely to radically change in the face of Covid 19
- Nonetheless, we’ll share the most recent (pre-Covid 19) projections for employment sector growth from 2015-2030

# External Environment: Employment Sector Projections...Covid 19

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- Employment Sectors with highest projected growth 2015-2030

Sector	% Growth 2015-2030
Health and educational Services	29%
Construction	18%
Professional and managerial services	13%

- Employment Sectors with lowest projected growth 2015-2030

Sector	% Growth 2015-2030
Manufacturing & Wholesale	-1%
Information	-1%
Agriculture & Natural Resources	-1%

# External Environment: Unemployment pre & post Covid 19

## Unemployment Rates in Chabot Service-Area Counties/Cities 2010 - 2020

Location		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	April 2020*
Alameda County, CA		10.9%	10.1%	8.7%	7.2%	5.8%	4.7%	4.3%	3.7%	3.1%	2.9%	14.1%
Chabot College	Castro Valley	10.0%	9.2%	7.9%	6.6%	5.3%	4.3%	3.9%	3.3%	2.8%	2.7%	12.9%
	Hayward	14.9%	13.8%	12.0%	10.0%	8.1%	6.6%	4.7%	4.0%	3.3%	3.2%	17.1%
	San Leandro	11.7%	10.8%	9.3%	7.8%	6.3%	5.1%	4.4%	3.8%	3.2%	3.2%	18.0%
	San Lorenzo	11.4%	10.5%	9.1%	7.5%	6.1%	5.0%	4.5%	3.8%	3.2%	3.1%	18.0%
	Union City	9.9%	9.2%	7.9%	6.5%	5.3%	4.3%	4.3%	3.7%	3.1%	3.0%	14.1%

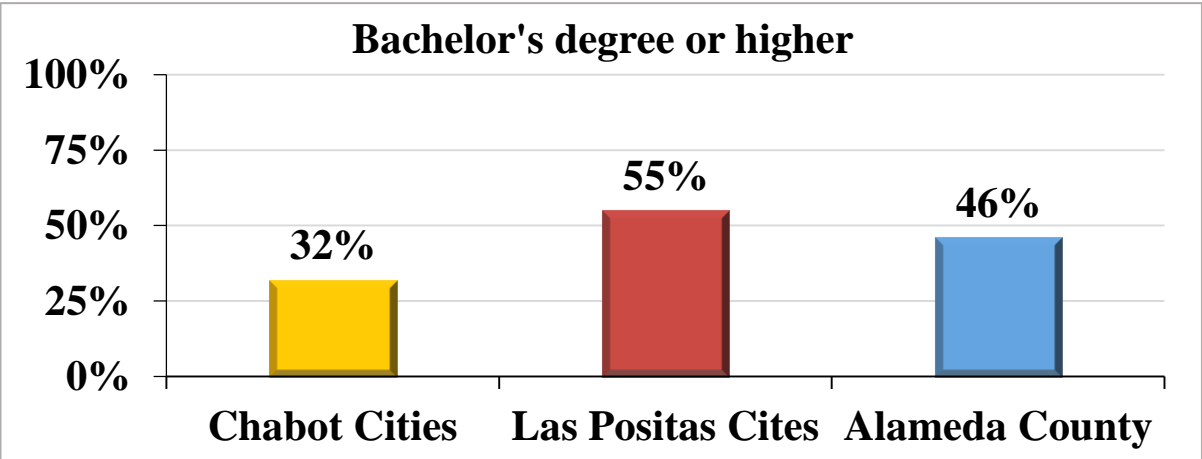
\*This column is monthly data, while other columns are annual data.

Source: Employment Development Department. State of California:

<https://www.labormarketinfo.edd.ca.gov/data/unemployment-and-labor-force.html>

# External Environment: Educational Attainment, Median Income, and Poverty Rate

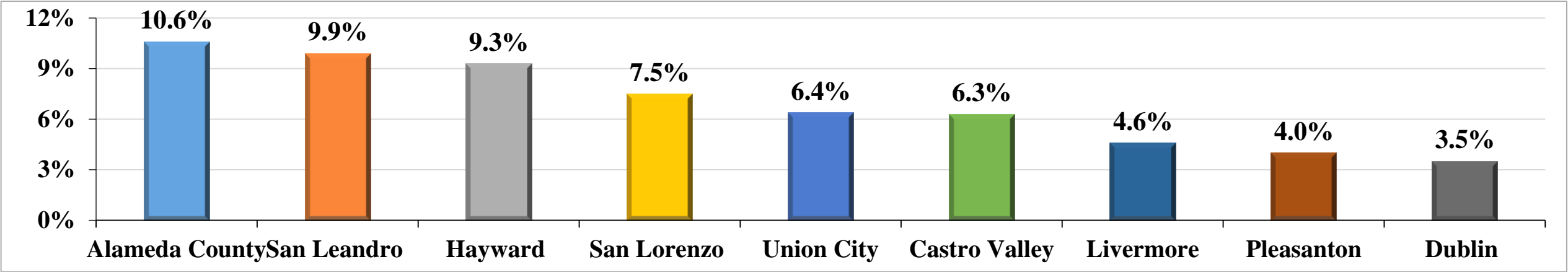
**Educational Attainment, 2018**



**Median Income, 2018**

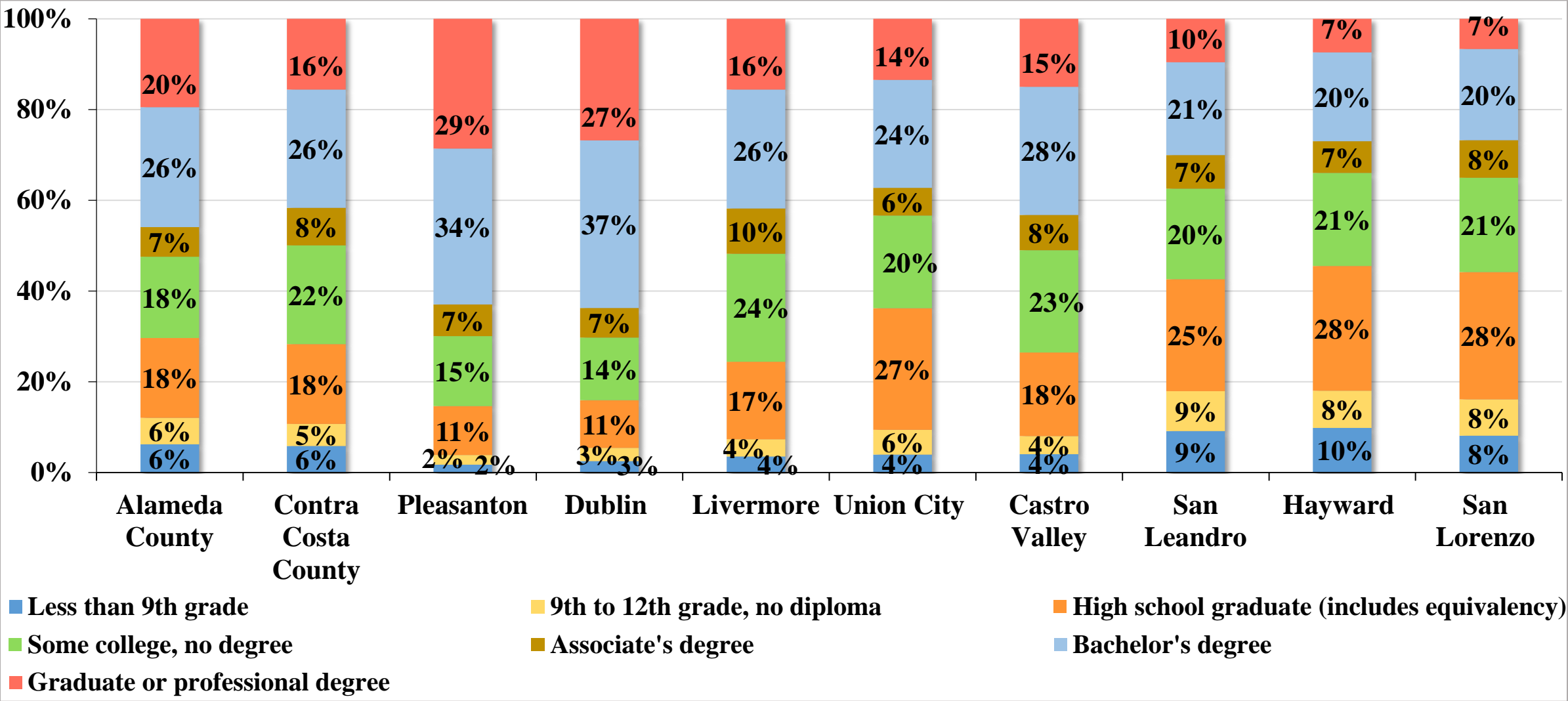
City	Median Income
Hayward	\$ 80,093
San Leandro	\$ 70,723
San Lorenzo	\$ 94,578
Castro Valley	\$ 101,816
Union City	\$ 105,448
Dublin	\$ 144,564
Pleasanton	\$ 148,852
Livermore	\$ 116,942

**Percent of People Living below Poverty, 2018**



Source: United States Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

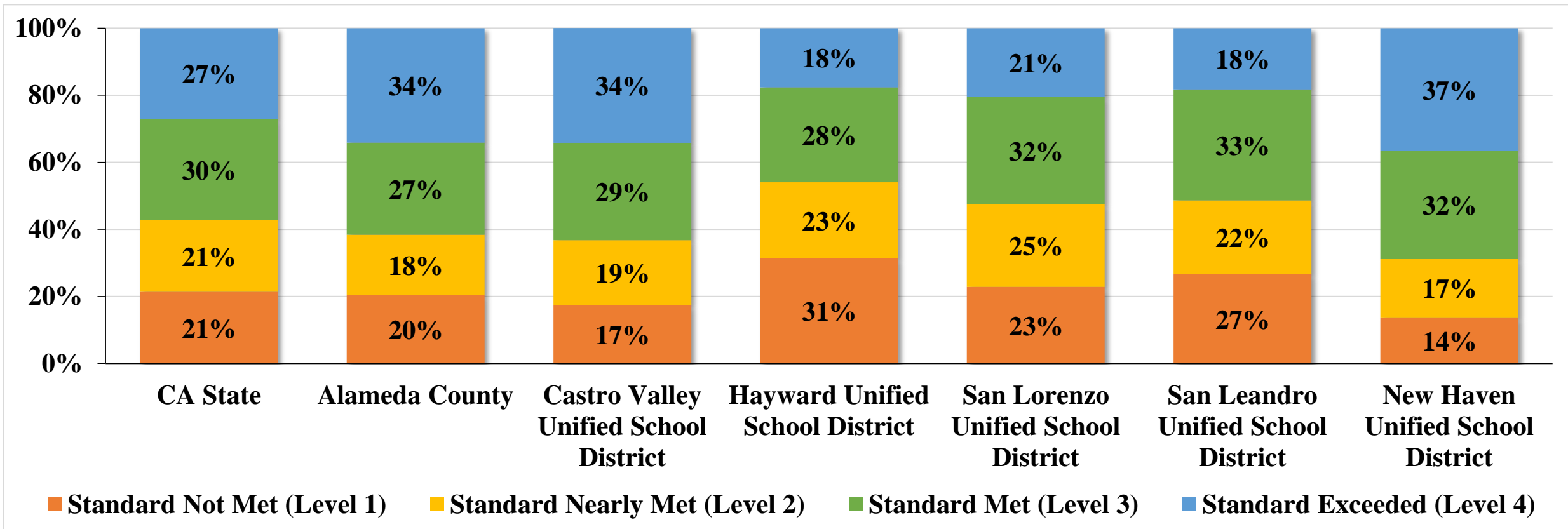
# External Environment: Educational Attainment, 2018



Source: United States Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

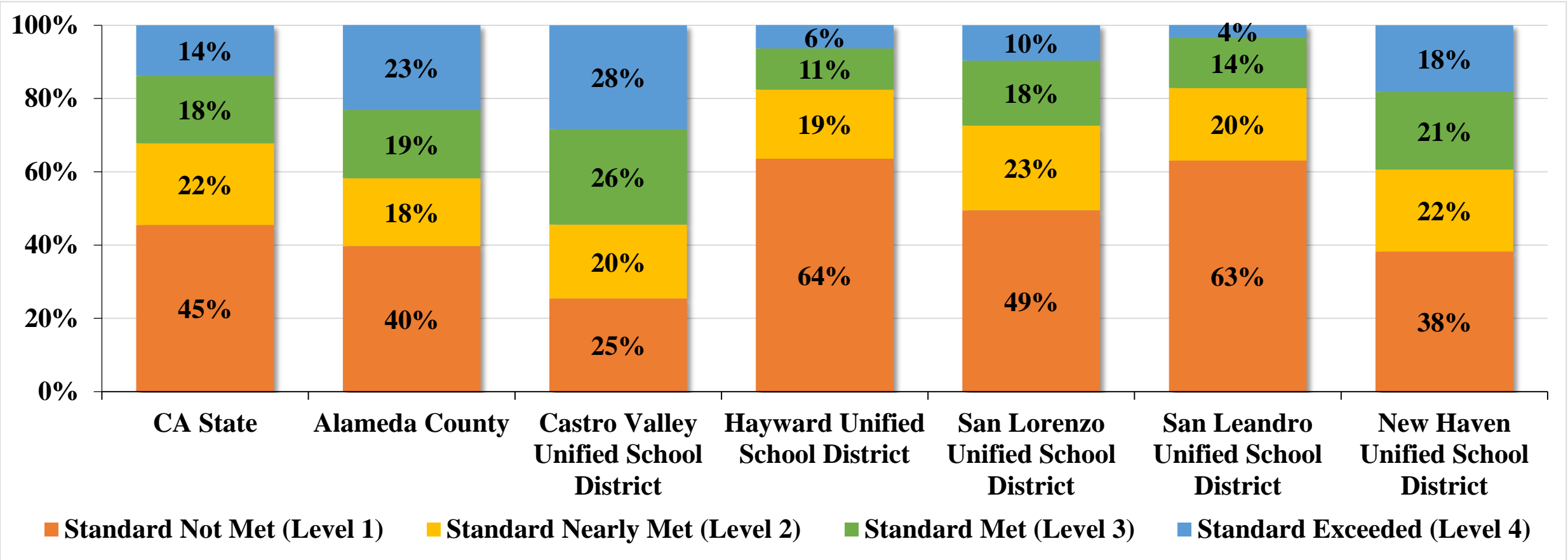
# External-Internal Environment: Preparation of Students from Feeder District High Schools

**State, County, and Chabot Feeder District High School Students'  
Smarter Balanced English Language Arts Assessment Achievement Level Distribution**



# External-Internal Environment: Preparation of Students from Feeder District High Schools

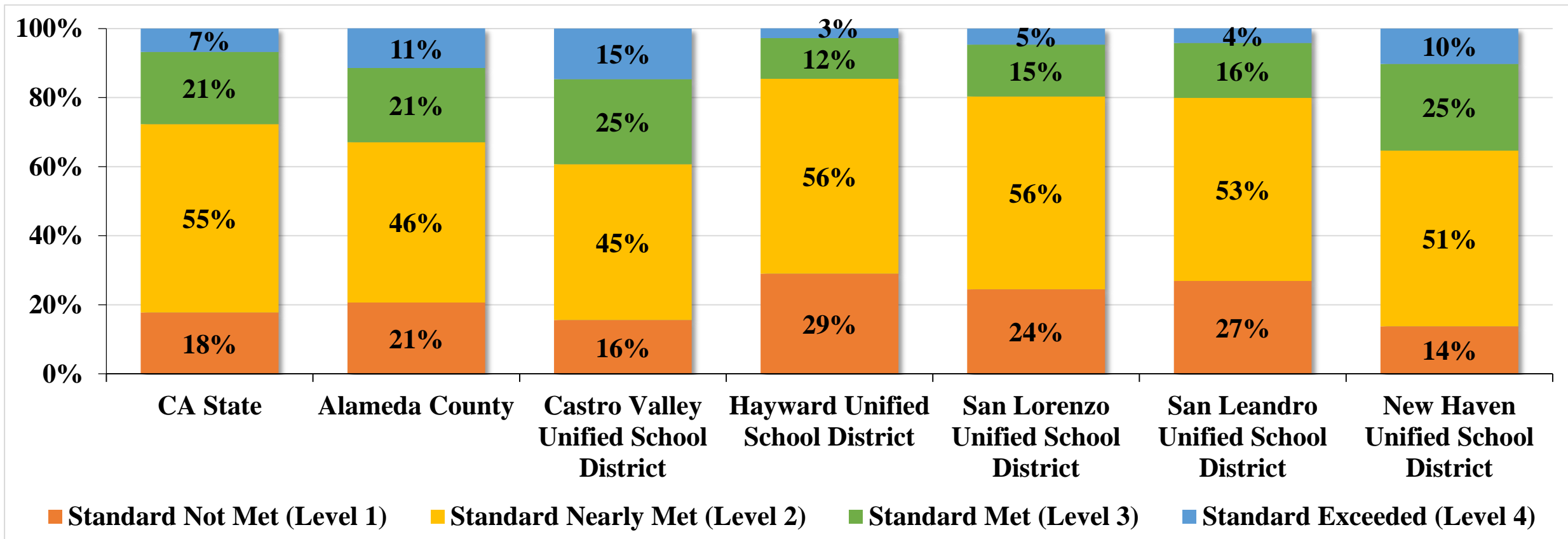
State, County, and Chabot Feeder District High School Students’  
Smarter Balanced Mathematics Assessment Achievement Level Distribution



Source: 2018-19 Test Results - CAASPP Reporting (CA Dept of Education) retrieved from <https://caaspp-elpac.cde.ca.gov/caaspp/> 24

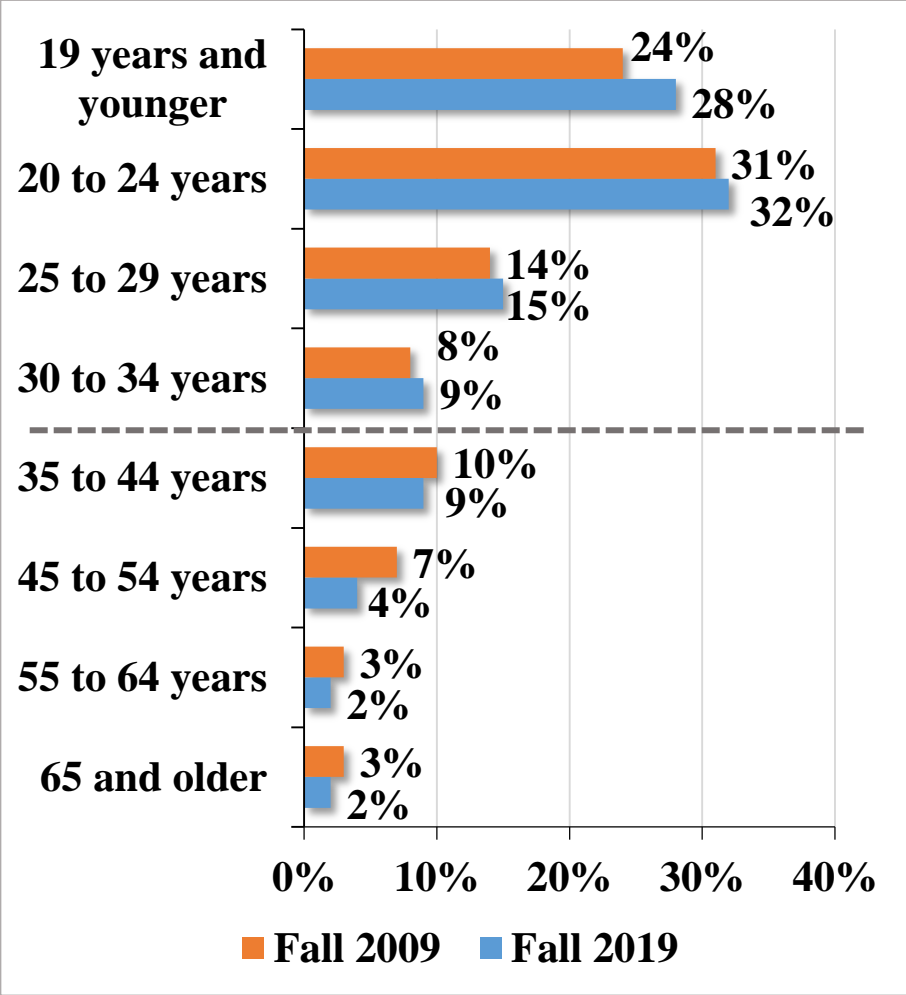
# External-Internal Environment: Preparation of Students from Feeder District High Schools

## State, County, and Chabot Feeder District High School Students' California Science Test (CAST) Achievement Level Distribution

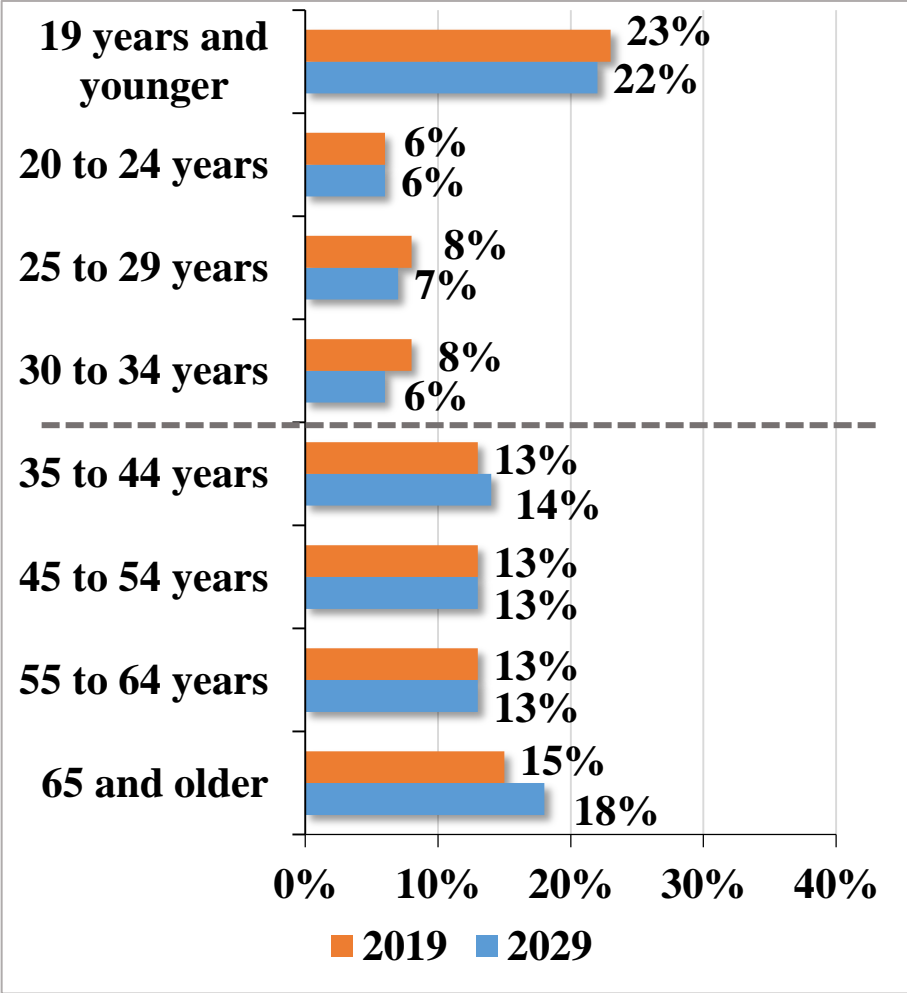


# External-Internal Environment Comparison: Age

Chabot College  
Fall 2009 vs. Fall 2019



Chabot Service-Area Cities  
2019 vs. 2029 Projections

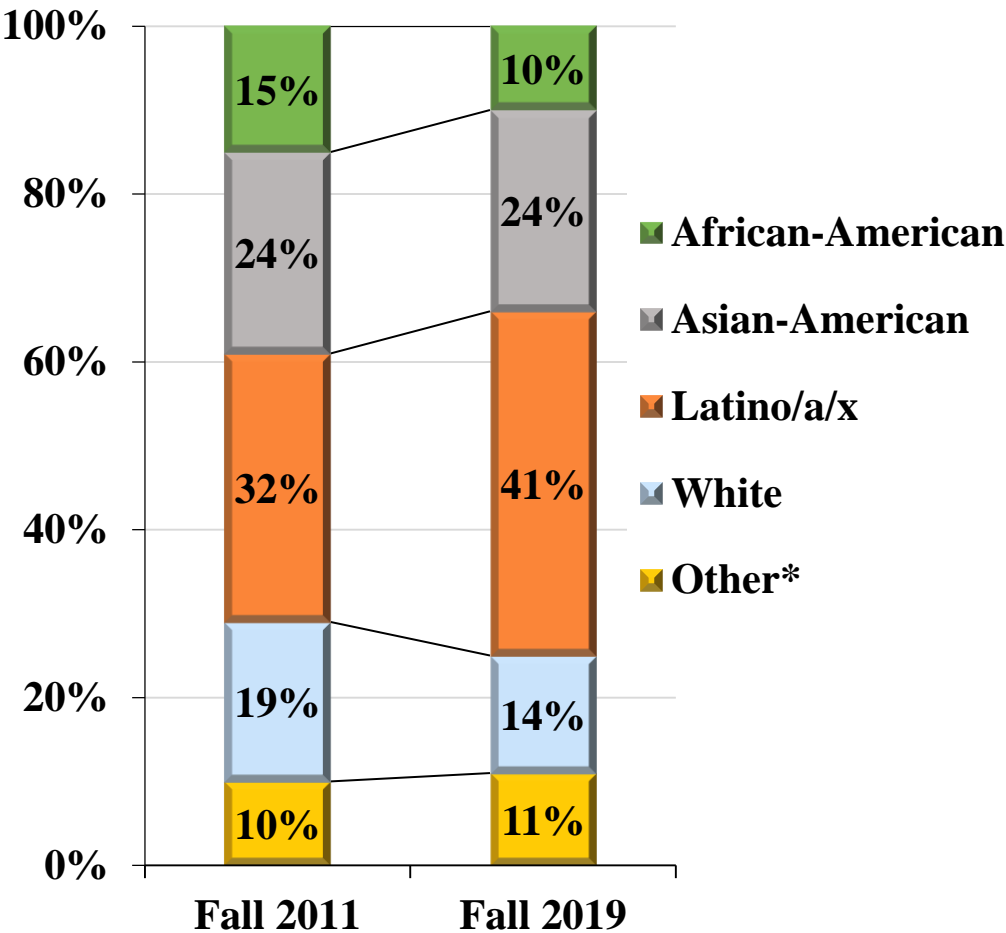


Source: Chabot – Las Positas CCD Institutional Research Dataset and Economic Modeling Specialist, Intl. (EMSI 2020.1 Data Set)

# External-Internal Environment Comparison: Race-Ethnicity

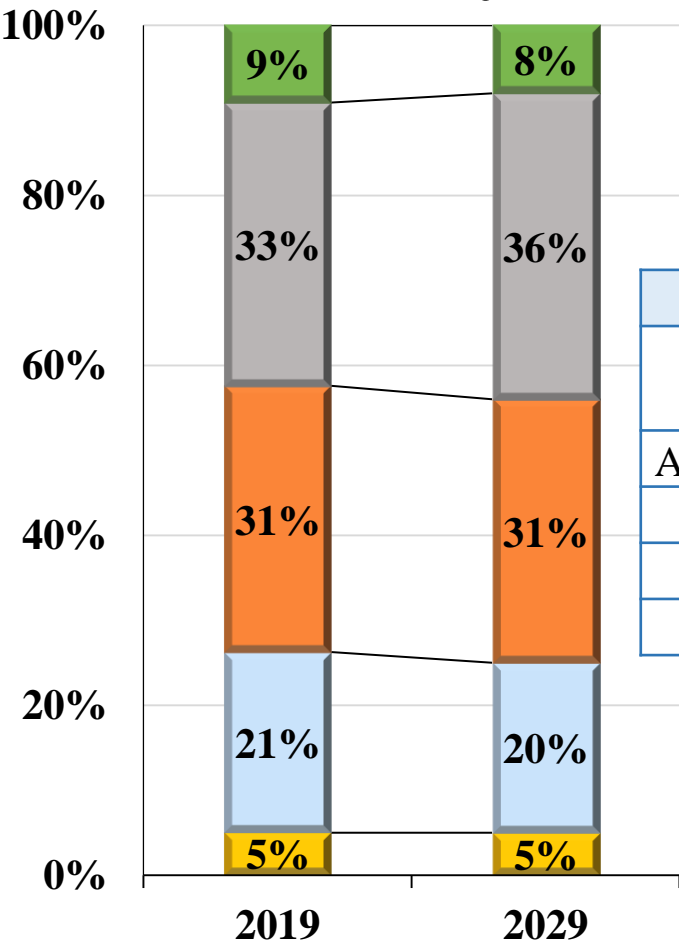
Chabot College

Fall 2011 vs. Fall 2019



Chabot Service-Area Cities

2019 vs. 2029 Projections



Chabot Service-Area Cities  
2019 vs. 2029 Projections  
by Numbers

	2019	2029	Change
African-American	43,006	39,378	-3,628
Asian-American	159,928	183,701	+23,773
Latino/a/x	146,556	153,900	+7,344
White	102,121	99,425	-2,696
Other*	27,158	29,389	+2,231

\*Includes American Indian, Alaska Native, Native Hawaiian, Pacific Islander, and Two or More Races

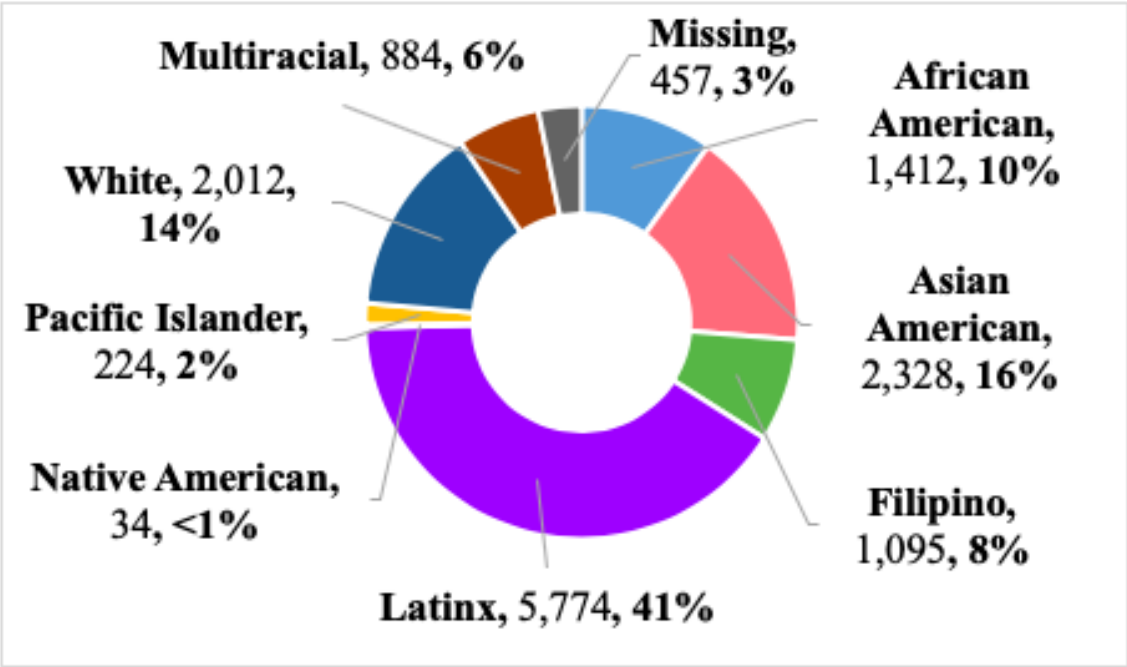
# Internal Environment Data

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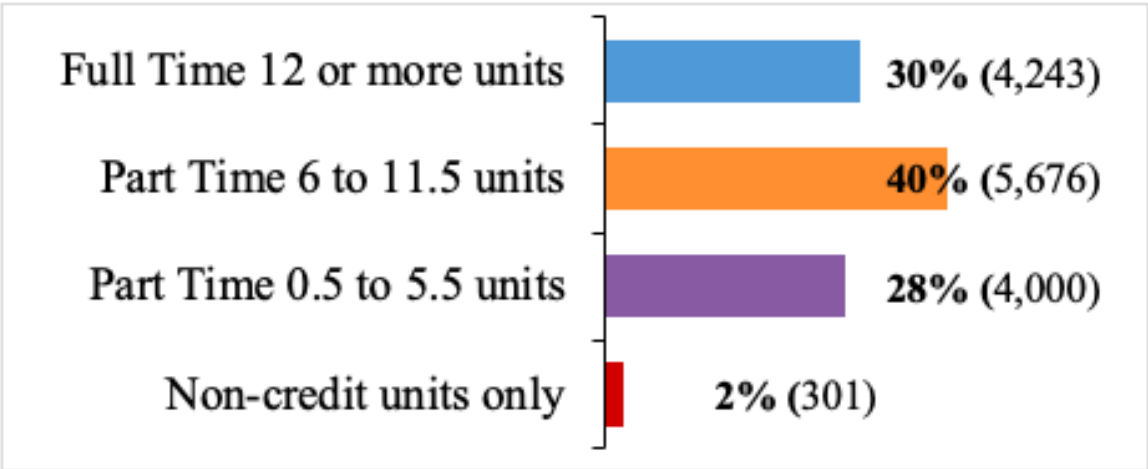
- Student Demographics: Who are our students and where do they live?
- Student Learning Outcomes
  - Leading Indicators
    - Course Success Rates
    - Retention
    - Guided Pathways Momentum Points
    - Transfer English/Math
  - Lagging Indicators
    - Certificates
    - Degrees
    - Transfers

# Internal Environment: Who are our Students? Fall 2019

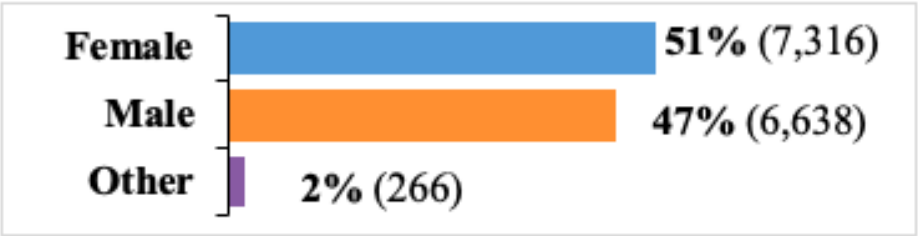
Race-Ethnicity



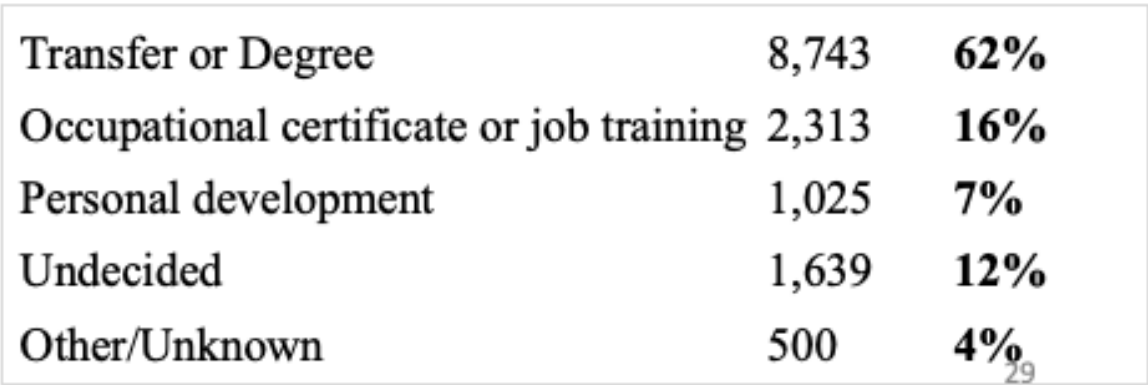
Attendance Status



Gender



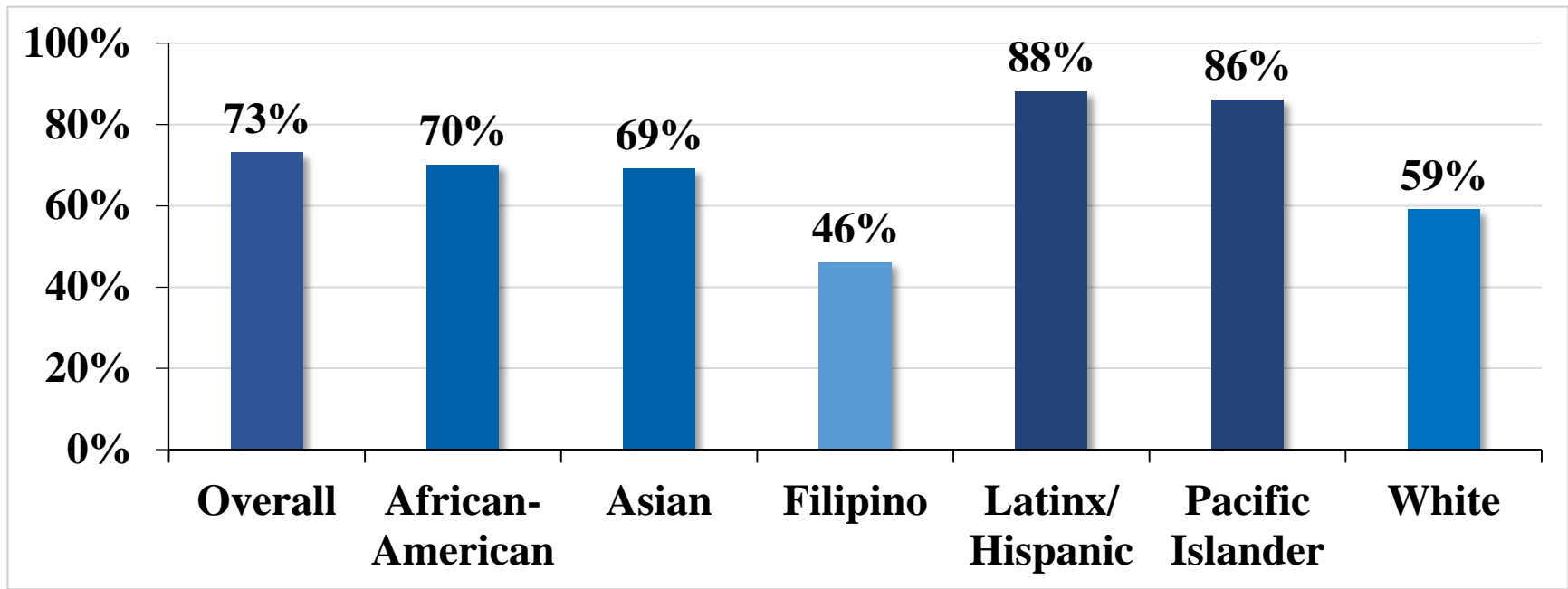
Educational Goal



Source: Chabot – Las Positas CCD Institutional Research Dataset and Economic Modeling Specialist, Intl. (EMSI 2020.1 Data Set)<sup>29</sup>

# Internal Environment: Who are our Students?

Percentage of First Generation College Students by Race-Ethnicity: Fall 19



Disability Status of All Students Fall 19

	Num	Pct
Any Disability	1,021	7%
No Disability	13,199	93%

Economic Status of First-Time College Students, Fall 19

Low Income		Not Low Income		Total	
Num	Pct	Num	Pct	Num	Pct
1,449	58%	1,057	42%	2,506	100%

AB540 Headcount All Students

2017-18	2018-19
522	536

Source: Chabot – Las Positas CCD Institutional Research Dataset and Chabot Admissions and Records Offices

# Internal Environment: Where do our students live?

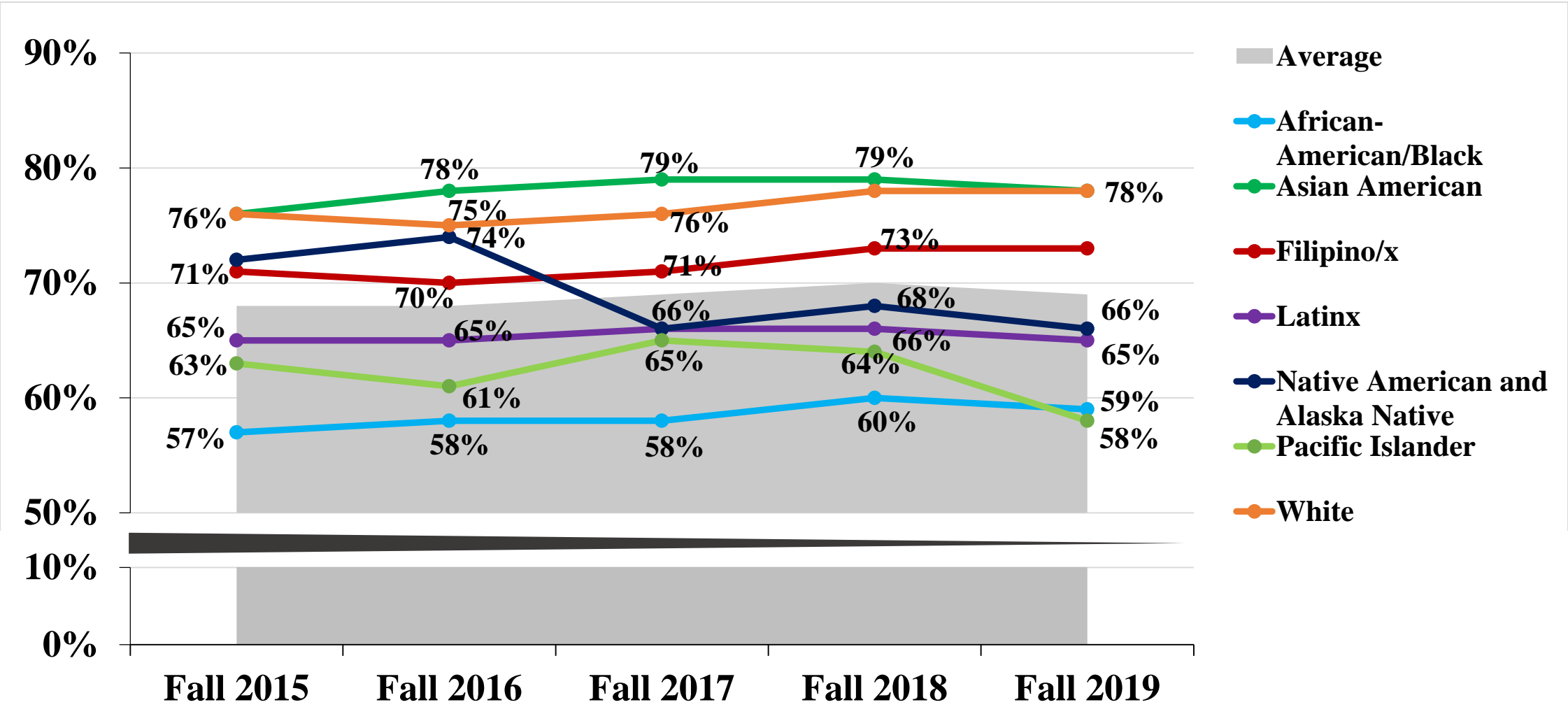
City	2015	2016	2017	2018	2019	% Change
Hayward	4,687	4,627	4,672	4,714	4,731	1%
San Leandro	2,134	2,145	2,143	2,109	2,054	-4%
Oakland	1,046	1,059	1,023	988	1,009	-4%
Union City	1,139	1,132	1,128	1,041	991	-15%
Castro Valley	945	996	932	959	956	1%
San Lorenzo	837	841	846	844	796	-5%
Fremont	725	787	708	669	626	-16%
Newark	269	285	256	266	236	-14%
Tracy	183	196	164	211	213	14%
Livermore	293	267	232	251	206	-42%
Pleasanton	191	201	178	190	166	-15%
Dublin	162	141	146	162	160	-1%
Alameda	129	121	123	121	123	-5%
San Diego*	3	8	99	119	117	97%
San Jose	91	126	115	107	107	15%
San Ramon	107	115	108	112	92	-16%
Other Cities	1,220	1,262	1,529	1,638	1,637	25%
<b>Total</b>	<b>14,161</b>	<b>14,309</b>	<b>14,402</b>	<b>14,501</b>	<b>14,220</b>	<b>&lt;1%</b>

\*Chabot has an apprenticeship program in San Diego

Source: Chabot – Las Positas CCD Institutional Research Dataset

# Student Outcomes: Leading Indicators

# Internal Environment: Course Success Rates by Race-Ethnicity, Fall 2015 to Fall 2019



Source: Chabot – Las Positas CCD Institutional Research Dataset

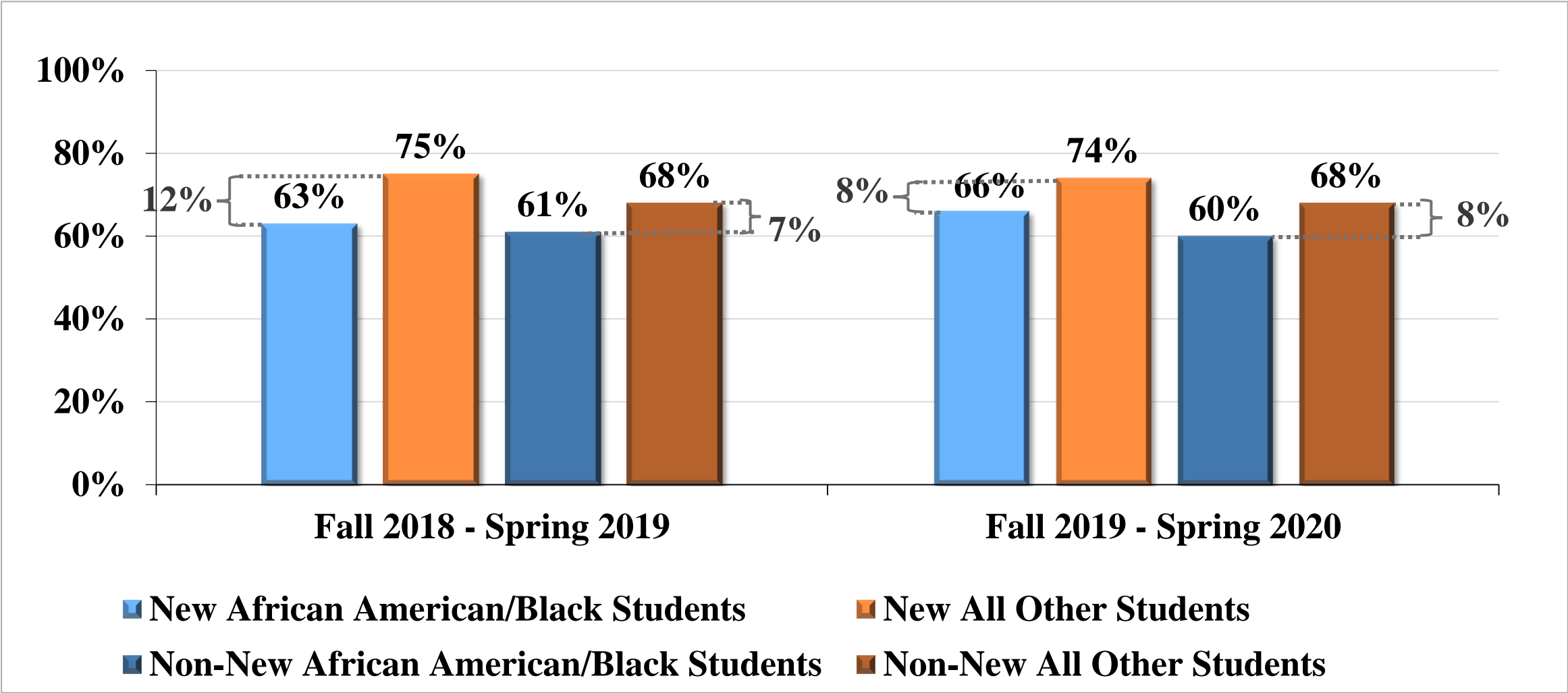
# Internal Environment: Retention for First-Time College Students with Transfer/Degree or Certificate Educational Goal

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Ed Goal	Period of Time	Chabot
Transfer/Degree	Retention from Fall 2018 to Spring 2019	76%
	Retention from Fall 2018 to Fall 2019	66%
Certificate	Retention from Fall 2018 to Spring 2019	66%

*Source: Chabot – Las Positas CCD Institutional Research Dataset*

# Fall to Spring Retention of African American/Black Students in Comparison to All Other Students



# Internal Environment: Guided Pathways Momentum Points for Fall 2018

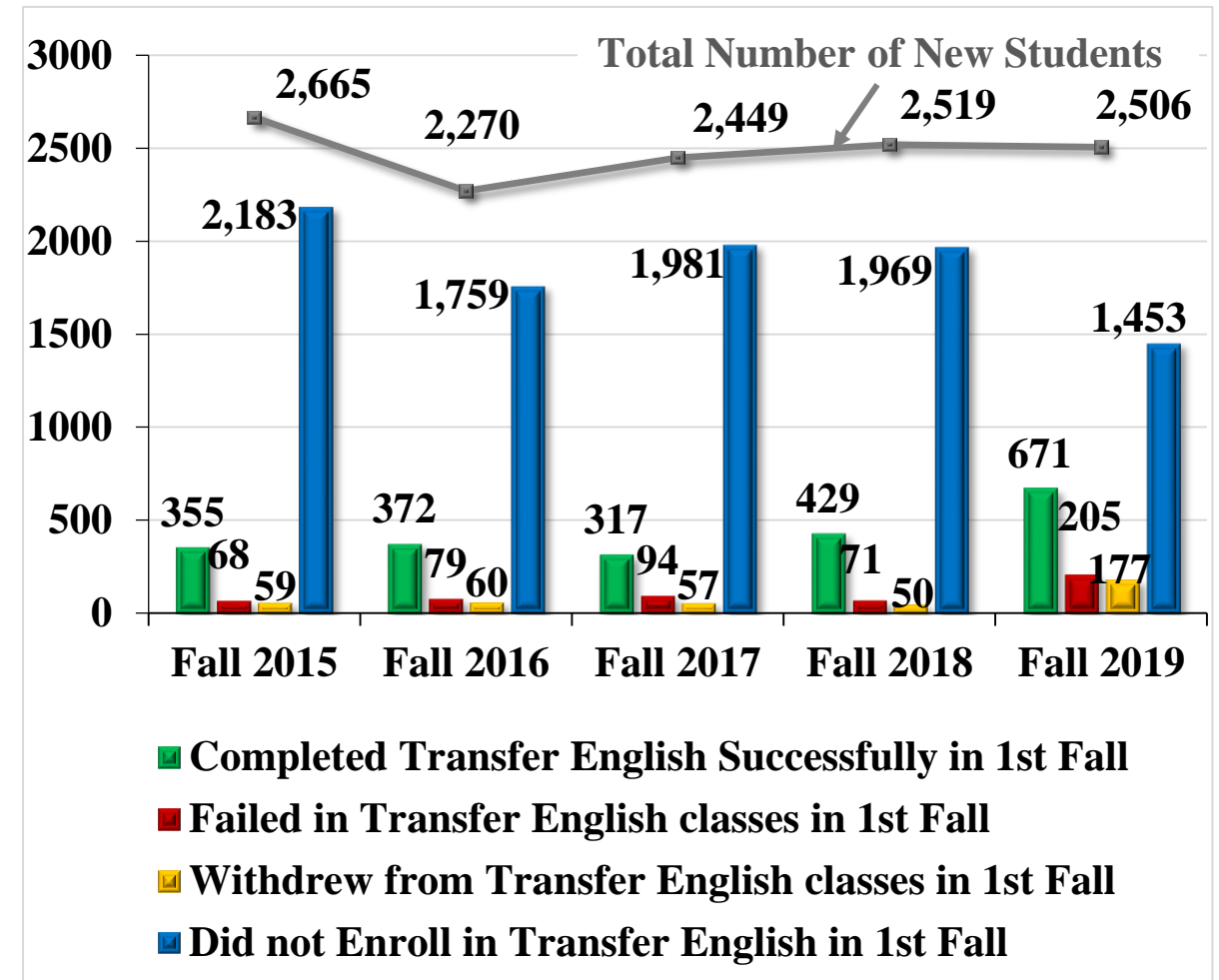
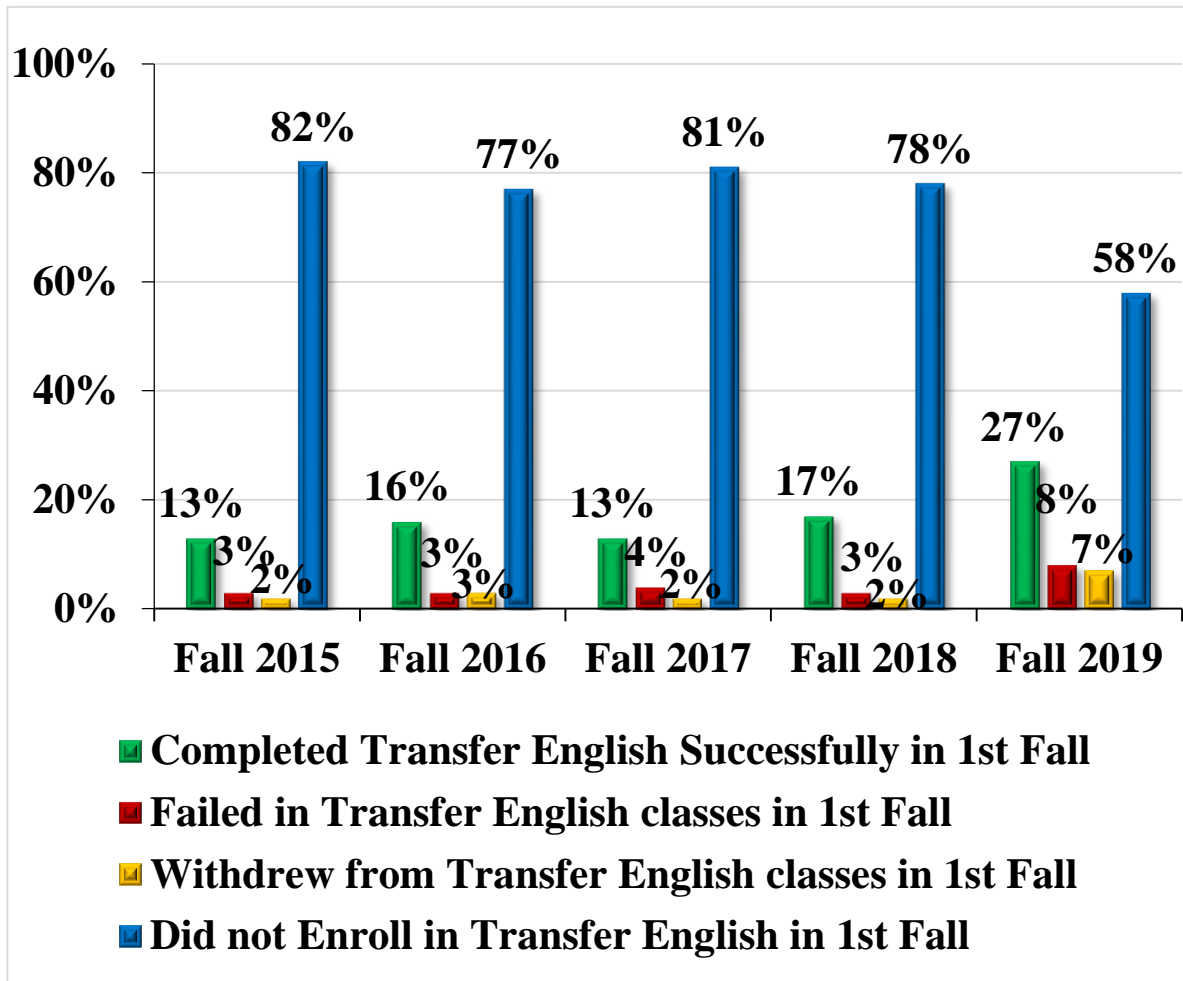
## First-Time College Students with Transfer/Degree Educational Goal

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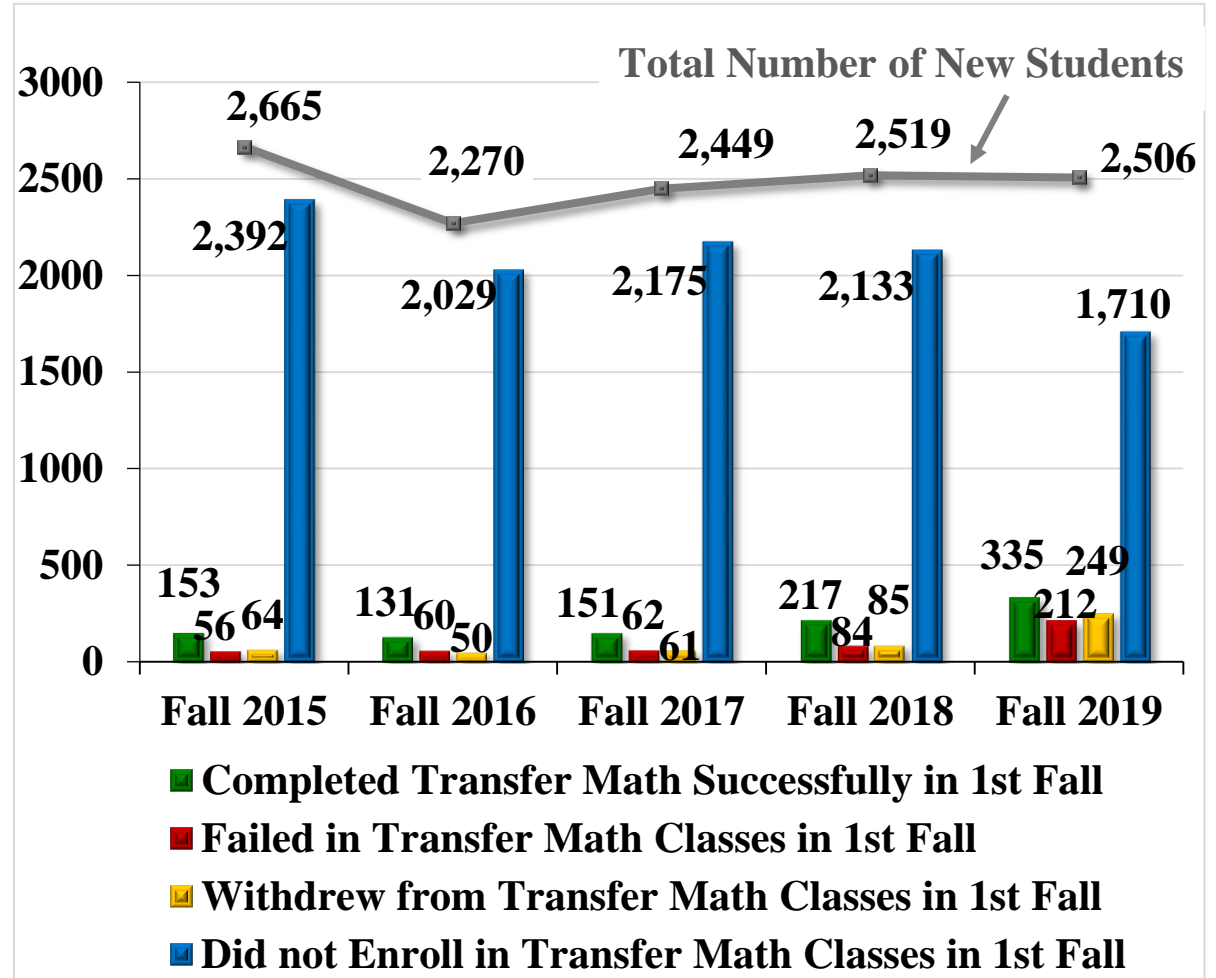
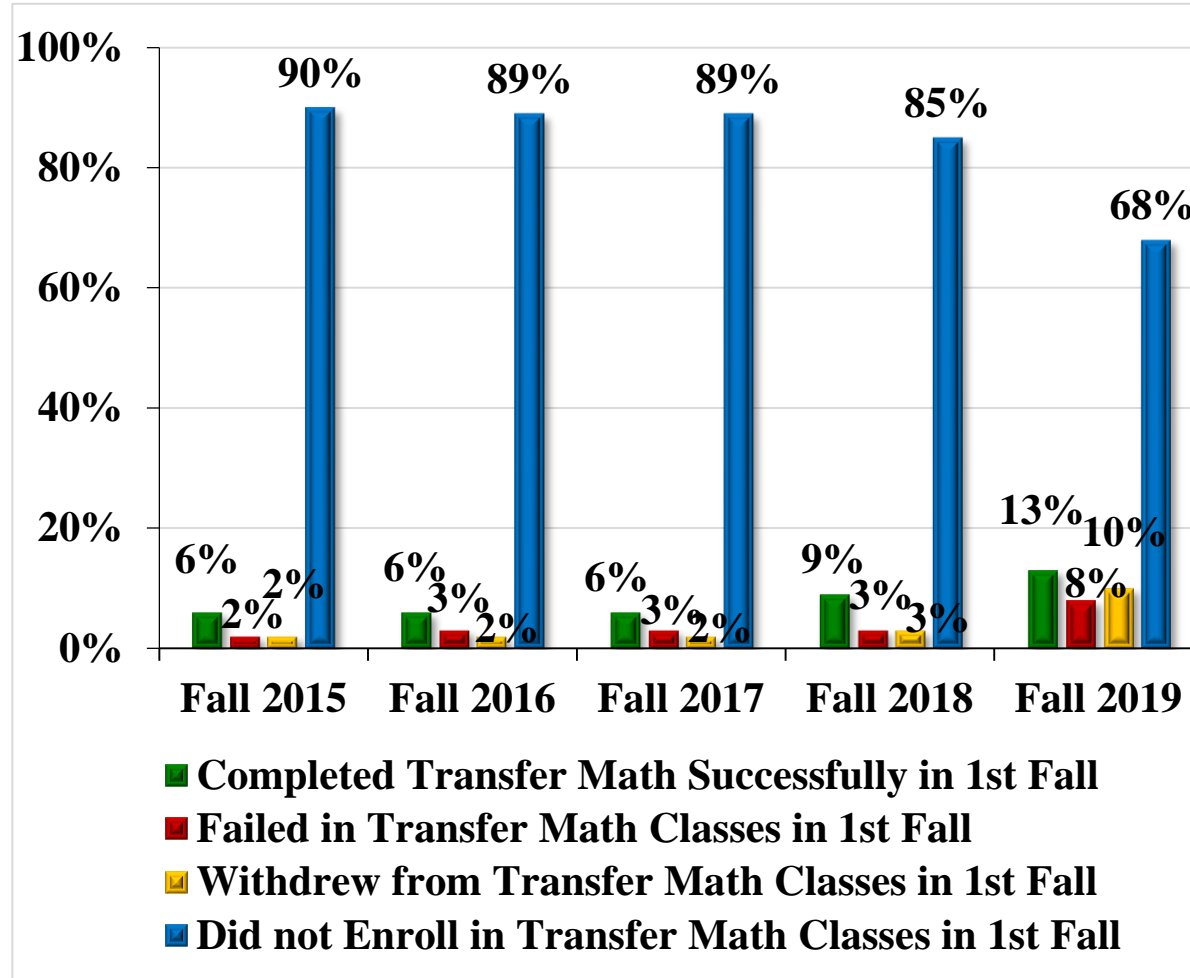
Attempting Units	Chabot
Attempted $\geq 15$ Units by Fall 2018	25%
Completed $\geq 15$ Units by Fall 2018	13%
Attempted $\geq 30$ Units by Spring 2019	17%
Completed $\geq 30$ Units by Spring 2019	8%

*Source: Chabot – Las Positas CCD Institutional Research Dataset*

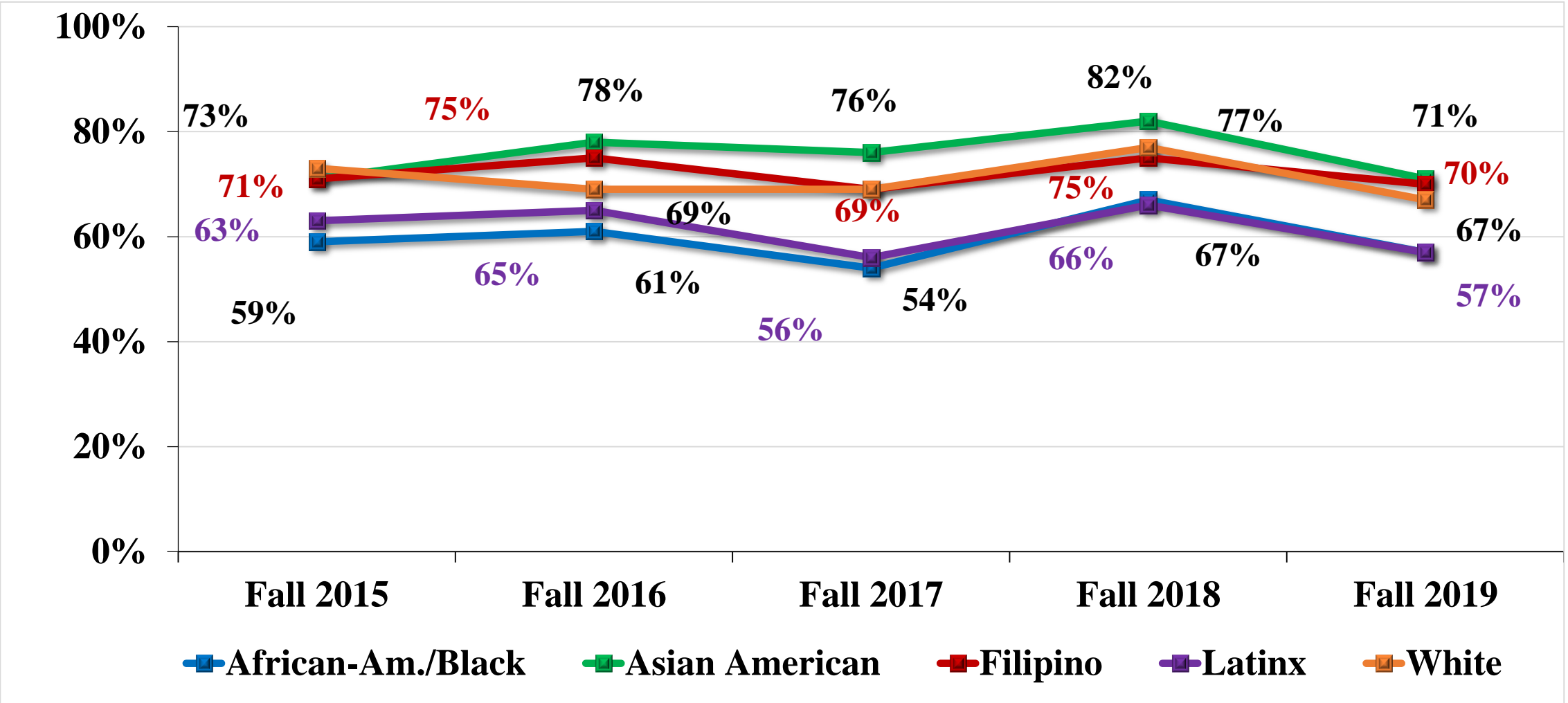
# Internal Environment: Transfer English Throughput Rate & Volume by First-Time College Students Higher with AB 705



# Internal Environment: Transfer Math Throughput Rate & Volume by First-Time College Students Higher with AB 705

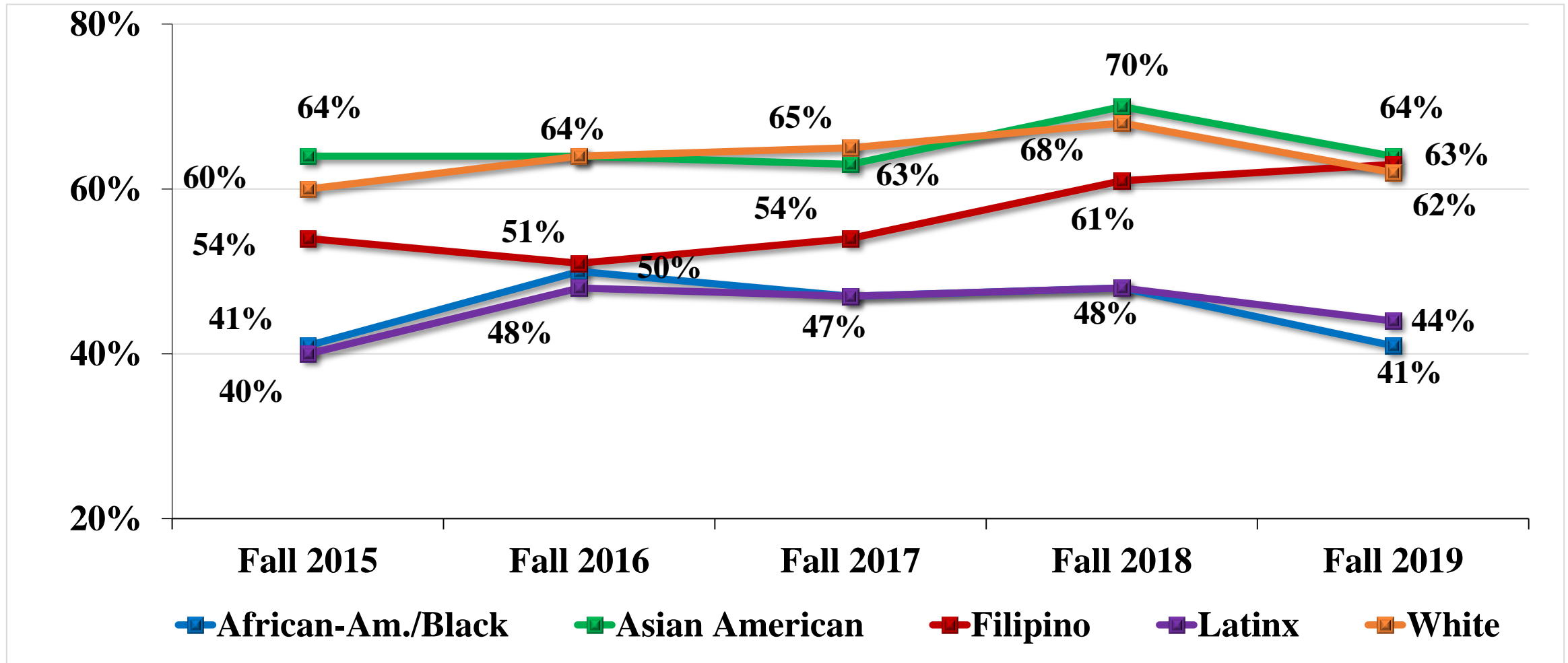


# Internal Environment: Course Success Rates for All Students in First-Level Transfer English are lower for Latinx & Black Students in comparison to Asian-American, Filipino, and White Students



Source: Chabot – Las Positas CCD Institutional Research Dataset

# Internal Environment: Course Success Rates for All Students in First-Level Transfer Math are lower for Latinx & Black Students in comparison to Asian-American, Filipino, and White Students



# Student Outcomes: Lagging Indicators

# Internal Environment: Degrees and Certificates Awarded

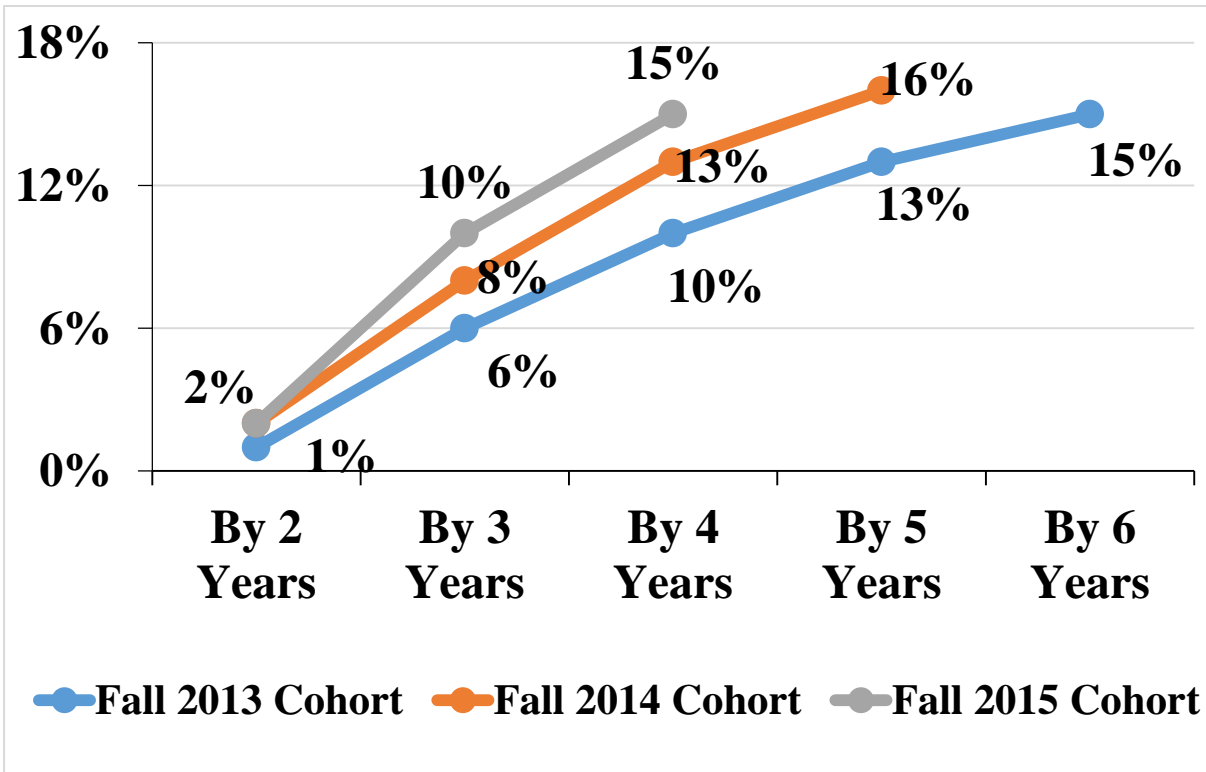
Chabot College		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Degrees	AA/AS	669	659	710	643	709	690	606	694	750	831
	ADT				69	129	175	242	297	396	477
	Total	669	659	710	712	838	865	848	991	1,146	<b>1,308</b>
Certificates	Chancellor Approved Certificates	122	209	212	290	226	269	236	237	407	689
	Non-Chancellor Approved Certificates*	54	162	84	94	109	173	76	177	138	151
	Total	176	371	296	384	335	442	312	414	545	<b>840</b>

\*At Chabot, these are sometimes referred to as Certificates of Proficiency.

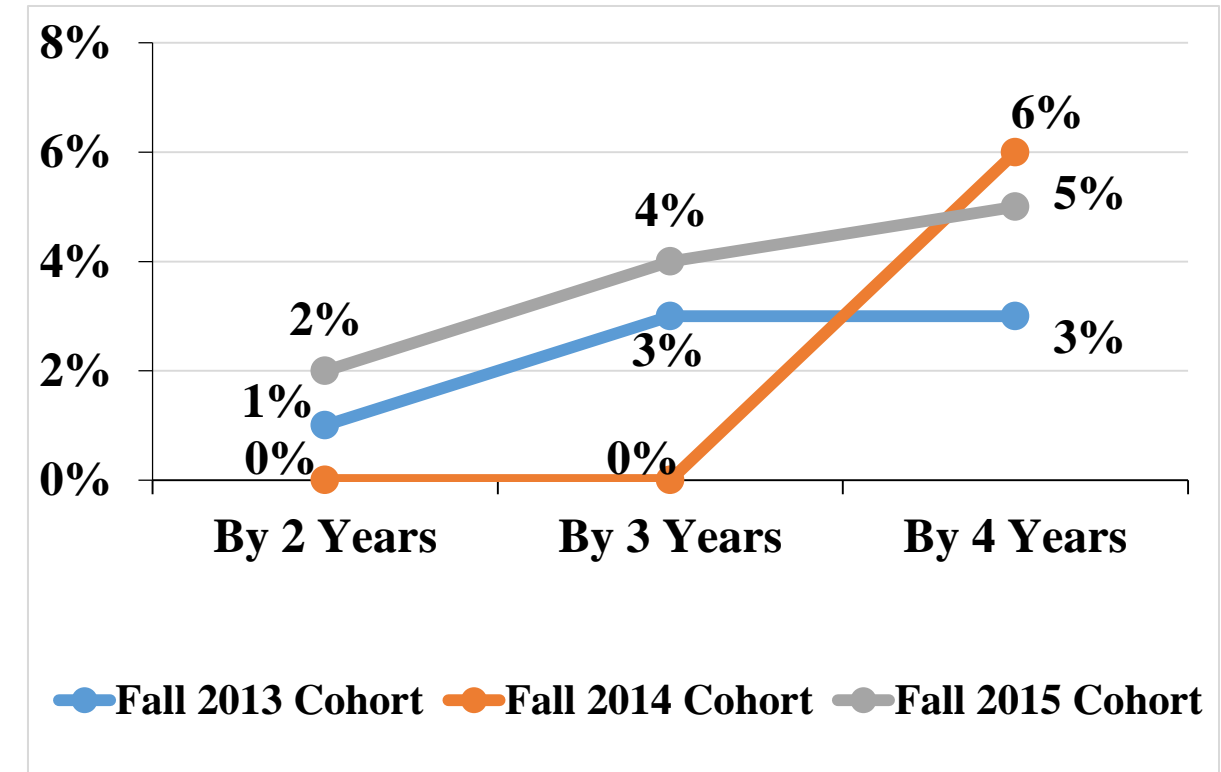
Source: Chabot – Las Positas CCD Institutional Research Dataset

# Internal Environment: Degree & Certificate Completion Rates

**Degree Completion Rates by First-Time College Students with Transfer/Degree Educational Goal**



**Certificate Completion Rates by First-Time College Students with Certificate Educational Goal**



\*Cohort sizes for first-time students with certificate educational goals are small and variable, so percentages should be interpreted with caution.

Source: Chabot – Las Positas CCD Institutional Research Dataset

# Internal Environment: Top 10 Majors Awarding Degrees in the Past 10 Years

Major	Degree	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Liberal Arts: Emphasis in Social & Behavioral Sciences	AA	66	159	161	172	205	181	184	225	223	220	<b>1,796</b>
Liberal Arts: Emphasis in Math & Science	AA	27	70	68	63	79	93	75	106	130	150	<b>861</b>
Business Administration	AA	36	34	47	32	7	2	0	0	0	0	158
	ADT	0	0	0	54	77	91	86	99	130	129	666
	Total	36	34	47	86	84	93	86	99	130	129	<b>824</b>
Biology: Emphasis in Allied Health	AA	60	57	66	49	75	53	31	33	59	70	553
Administration of Justice	AA/AS	26	16	40	24	23	16	12	7	8	6	178
	ADT	0	0	0	0	10	18	38	39	48	51	204
	Total	26	16	40	24	33	34	50	46	56	57	<b>382</b>
Nursing	AA	37	44	50	42	42	46	30	28	32	29	<b>380</b>
Liberal Arts: Emphasis in Arts & Humanities	AA	16	27	47	38	41	43	35	35	42	39	<b>363</b>
Liberal Arts: Selected Studies	AA	210	62	24	4	11	4	0	1	0	0	<b>316</b>
Early Childhood Development	AA/AS	26	31	27	26	16	28	29	19	25	27	<b>254</b>
Psychology	ADT	0	0	0	0	3	16	31	50	71	68	<b>239</b>

Source: Chabot – Las Positas CCD Institutional Research Dataset

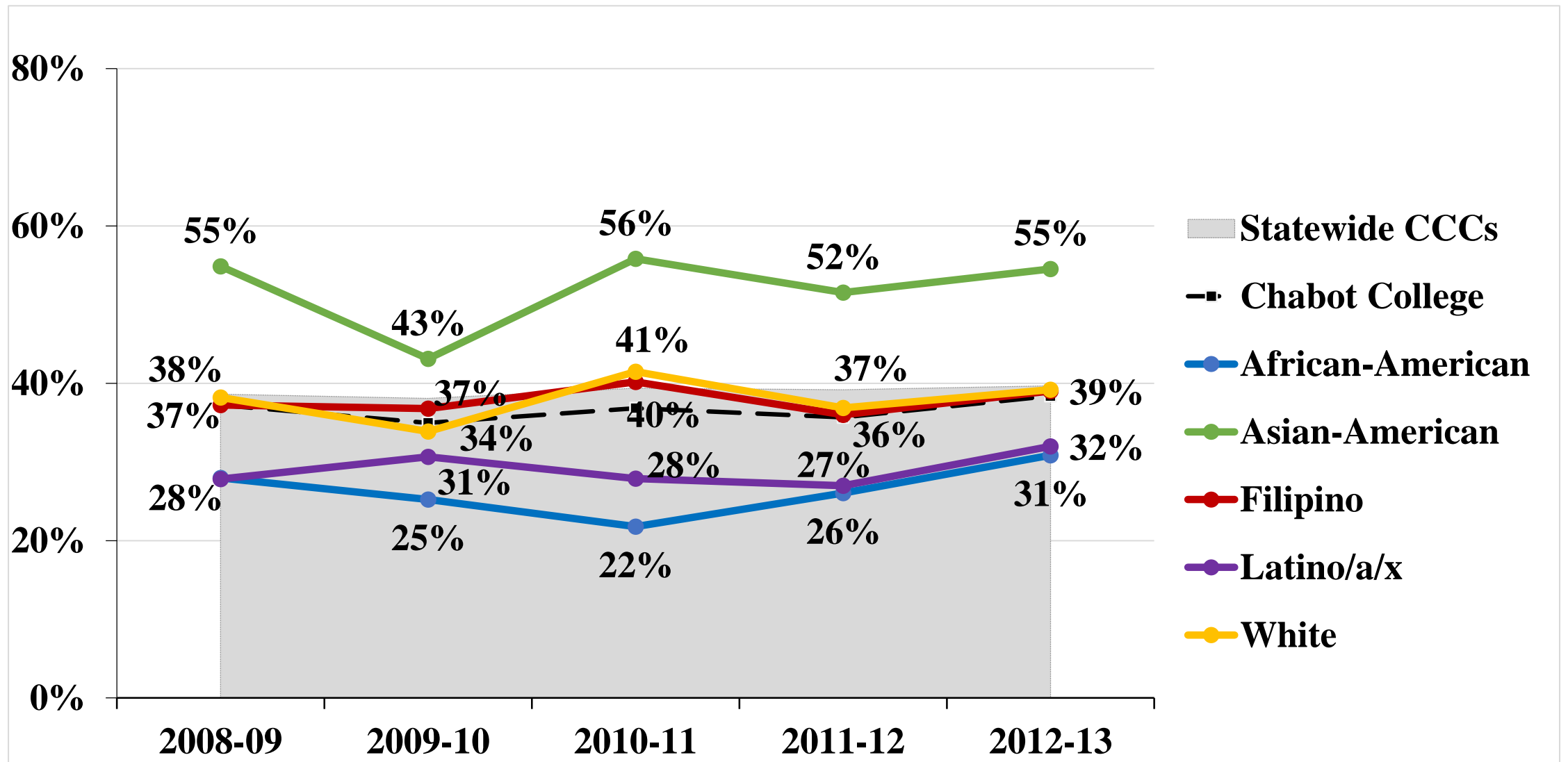
# Internal Environment: Top 10 Majors Awarding Certificates in the Past 10 Years (Chancellor Approved Certificates only)

Major	Certificate	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total
CSU General Education Breadth	CAA	4	13	19	15	10	18	29	27	105	326	<b>566</b>
Intersegmental General Education Transfer Curriculum (IGETC)	CAA	2	2	2	2	1	7	4	10	81	175	<b>286</b>
Business Administration	CA	3	15	17	34	21	29	10	19	31	34	<b>213</b>
Accounting Technician	CA	15	15	29	18	33	28	15	11	14	16	<b>194</b>
Medical Assisting	CA	7	17	18	14	10	2	19	26		1	114
	CAA	12	4				12		1	23	25	77
	Total	19	21	18	14	10	14	19	27	23	26	<b>191</b>
Early Childhood Development (ECD)*: Basic Teacher	CA	15	22	15	23	12	24	16	16	14	16	173
	CAA								1		1	2
	Total	15	22	15	23	12	24	16	17	14	17	<b>175</b>
Bookkeeping	CA		11	27	20	30	27	16	16	15	12	<b>174</b>
Management	CA	16	25	12	17	12	22	13	12	14	11	<b>154</b>
Automotive Chassis Technology	CA	4	9	5	34	9	11	16	11	12	7	<b>118</b>
Automotive Maintenance Tech	CA	4			27	6	6	12	10	6	3	<b>74</b>

\*ECD: Associate Teacher accounts for an additional 824 (non-Chancellor Approved) certificates from 2009-10 to 2018-19.

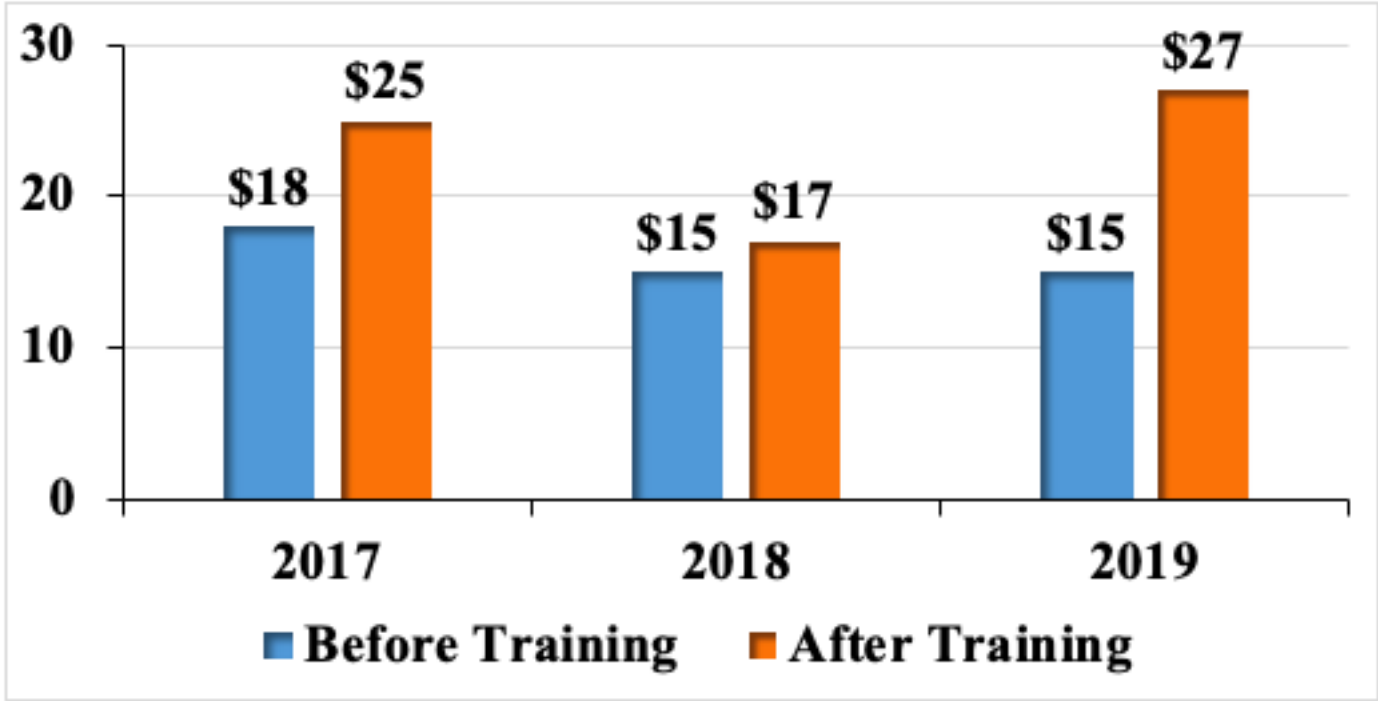
Source: Chabot - Las Positas CCD Institutional Research Dataset

# Internal Environment: Transfer Velocity (6-year rates) by Race-Ethnicity



# Internal Environment: Wage Gains and Jobs in Closely Related Field

Wage Gains Before and After Training



Percent of Students with Jobs Closely Related to Field of Study

Year	Chabot
2017	69.6%
2018	60.6%
2019	71.6%

Source: Career & Technical Education Employment Outcomes (CTEOS) Survey

# Reflection Questions

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**Keeping our college mission\*, the strategic plan objectives\*\*, and your day-to-day work in mind:**

- 1. What ideas/data apply to your day-to-day work? What ideas do the data point(s) give you for how you might do your work more effectively?**
- 2. What ideas/data could you use in your planning for specific discipline, department, or service-area initiatives?**
- 3. What ideas/data do you believe are most important to consider as we make long-term plans and over-arching goals (design the EMP) for the college?**
- 4. Looking across all/most of the ideas/data in this ppt, what story does the data tell?**

***\*Mission:** We are a dynamic, student-centered community college that serves the educational, career, job skills, and personal development needs of our community. We provide culturally responsive, sustaining, and revitalizing learning and support services driven by a goal of equity. Building upon students' strengths and voices, we empower students to achieve their goals and lead us towards an equitable and sustainable world.*

***\*\*Strategic Plan Objectives:***

- 1. Provide frameworks for both guided exploration and clear navigation to students' educational goals*
- 2. Utilize high impact teaching strategies and learning supports*
- 3. Improve equitable outcomes*
- 4. Develop an integrated Planning and Budget Model*
- 5. Foster a connected and engaged community*
- 6. Implement technological solutions*