

# INTEGRATING THE EDUCATIONAL AND FACILITIES MASTER PLANS

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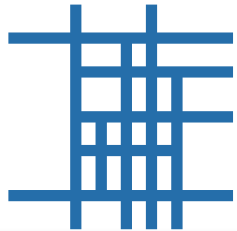
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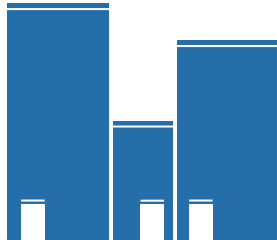
**Society for College  
and University Planning**

# BACKGROUND



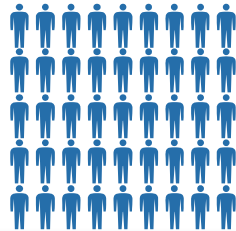
**6**

campuses



**8**

centers



**40,000+**  
enrollment

**Pima Community College District (PCC) is one of the largest Community College Systems in the country.**

# BACKGROUND

**Pima Community College District (PCC) has been offering technical career education and training programs for years but the College lost sight of the most important mission—ensuring that we were:**

- Identifying unfilled labor market needs
- Providing opportunities for career advancement with relevant and coherent pathways
- Promoting the associate degree as a desired employment credential

# CHALLENGES

**The 21<sup>st</sup> Century initiated profound change in Higher Education. PCC has increasingly felt the pressure of compounding issues:**

- Accreditation challenges
- Decreasing enrollment
- Delayed master plan
- Lack of a clear community vision for the College
- Traditional models of funding
- Governance
- Academic delivery and accountability (tech programs)
- Campus life for students



# COMPETING INTERNAL PROCESSES

**PCC had to address difficult internal process challenges forcing the College to face the consequences of not being consistent about the master planning cycle:**

## **Competing decision-makers**

- Multi-Campus vs. Multi-College district structure (most within Tucson metro)

## **Duplicating campus programs and resources**

- Programs are not right-sized and sometimes in conflict with other campuses
- One-off program improvement projects that were dividing up the campuses
- District undergoing major renovations to ensure right sizing
- Change resistance/pushback - accustomed to doing their own campus based projects, instead of aligning with master plans

# LEARNING OUTCOMES

- Frame joint plans around a shared mission to help promote rapid consensus building and decision making.
- Structure an effective leadership team comprised of administration, operations, and faculty members to lead concurrent plans.
- Successfully initiate more provocative ideas in the master planning process to elevate the educational plan goals and recommendations.
- Measure the planning outcomes every five years to continuously align educational and operational plans with the overall strategic plan.

# INTEGRATED PLANNING

To address compounding challenges, PCC took a unique approach in integrating the educational and facilities master planning processes.



The results are exceeding expectations in realigning, repositioning, and transforming the College.

They demonstrate the value in intersecting these plans through the lens of enhancing student success outcomes.

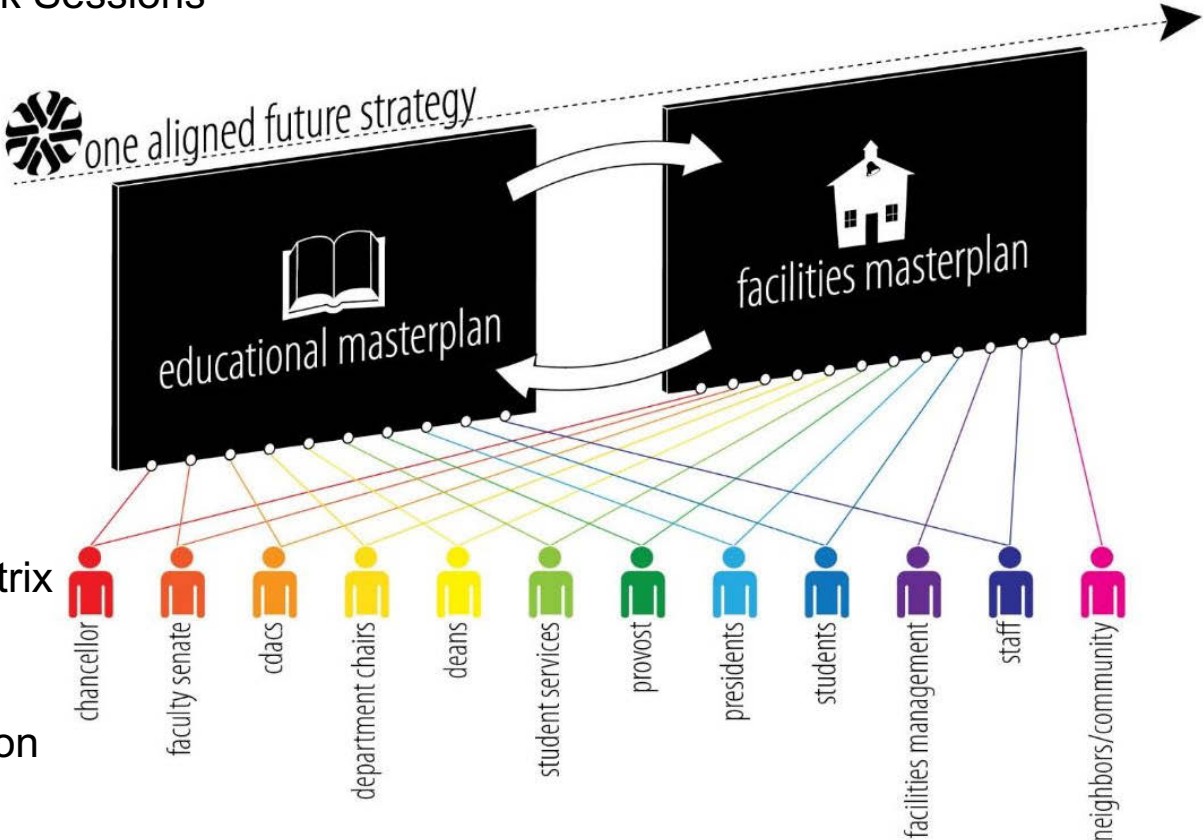
# ONE ALIGNED FUTURE STRATEGY

## EDUCATIONAL MASTER PLAN

- Study Team & Participant Work Sessions
- Market Analysis
- Benchmarking
- New Program Assessment
- Student Services Assessment
- Future Capacities
- Program & Service Migration
- Existing Program Analysis Matrix
- GIS Demographic Mapping
- Center of Excellence/Integration

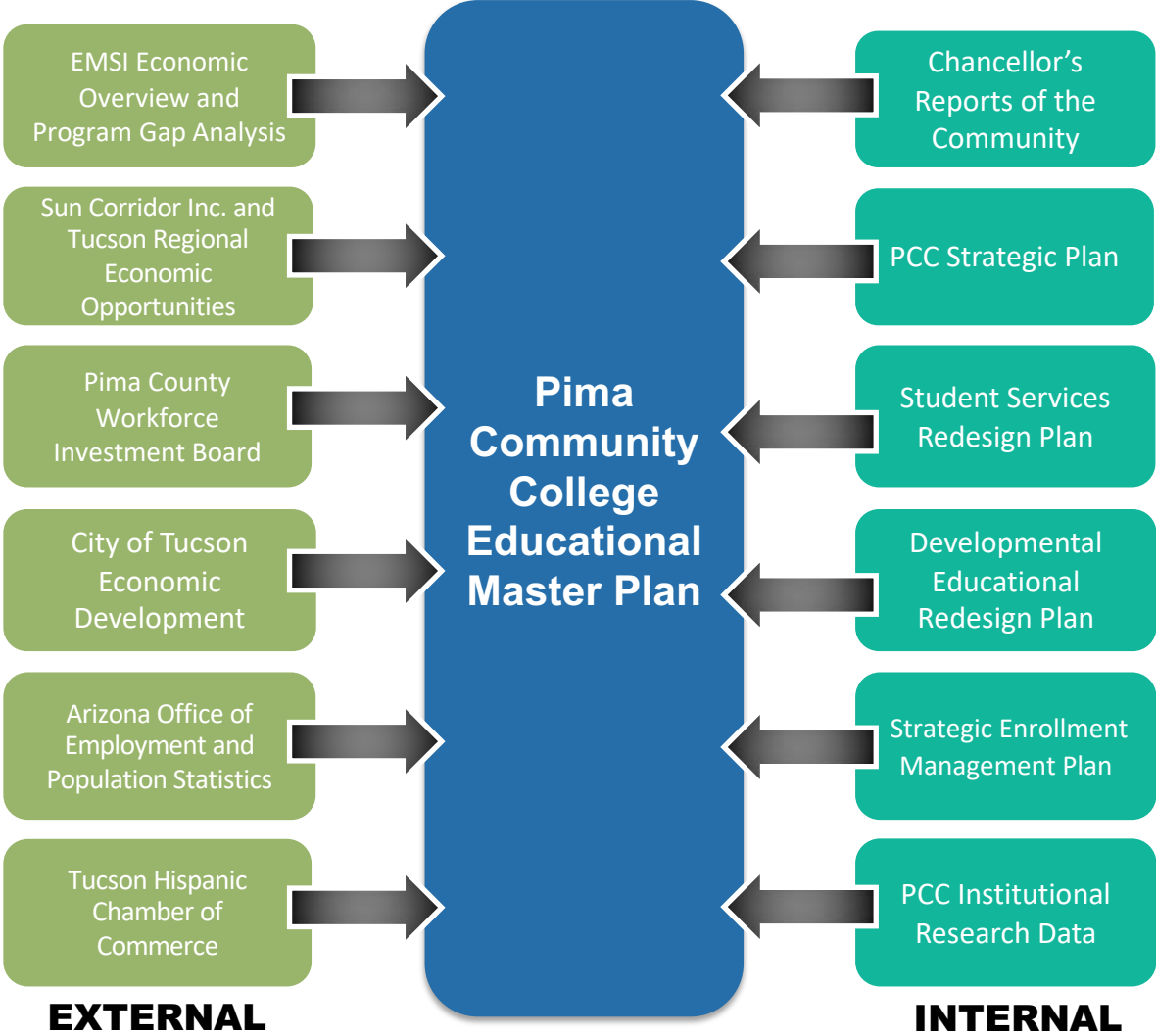
## FACILITIES MASTER PLAN

- Work Sessions with the College
- Space Utilization Analysis
- Space Projections
- Physical Site Analysis
- Regional/Community Analysis
- Sustainable Design Feasibility
- Design Alternatives
- Design Refinement
- Master Plan Report

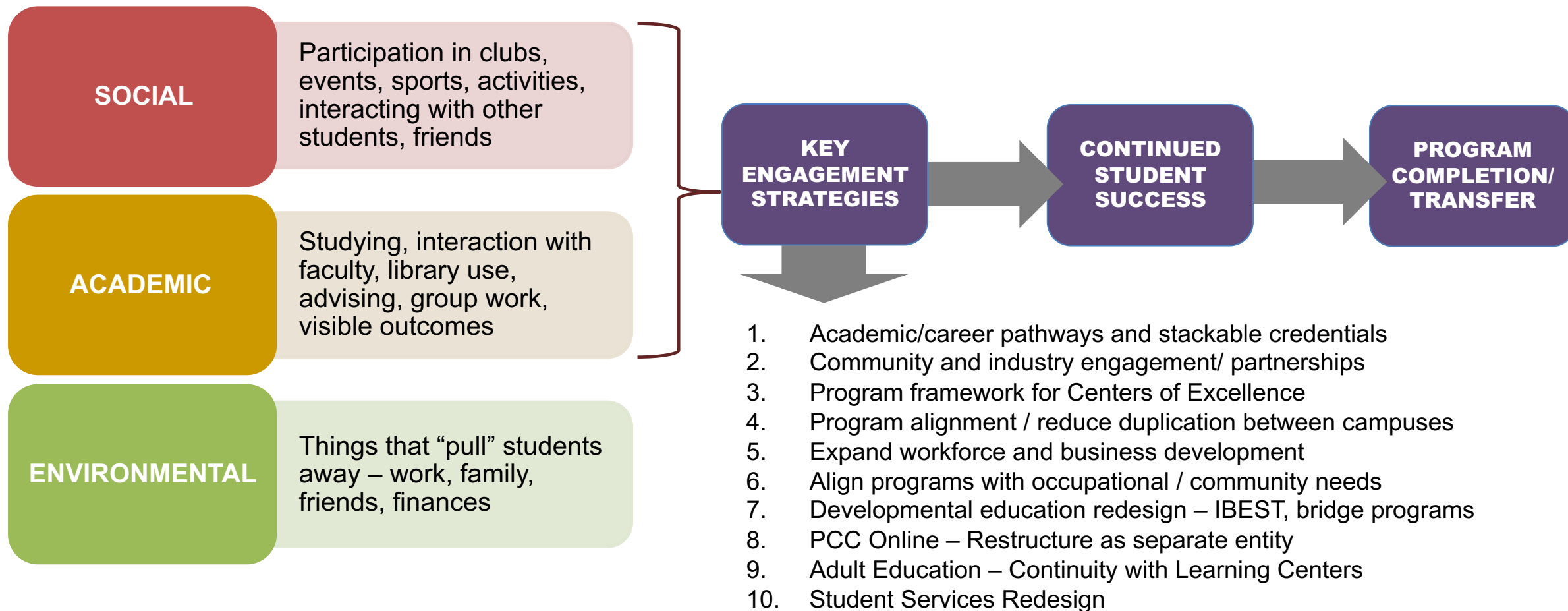


# Educational Master Plan:

# PROCESS AND INPUT



# SUCCESS FOCUSED



**Tinto's Theory: The more students become integrated into social and academic systems, the greater level of persistence completion**

# Educational Master Plan:

# DEMOGRAPHICS

**PIMA COUNTY POPULATION PROJECTIONS BY AGE - MEDIUM SERIES**

Year	15-19	20-24	25-34	35-44	45-54	55-64	65-74
2015	71,479	79,641	132,030	118,470	121,614	131,229	101,641
2020	76,067	83,205	141,606	124,133	118,055	138,467	124,926
2025	77,942	87,356	150,663	132,425	121,794	130,671	140,246
<b>10 Year Change %</b>	<b>9.0%</b>	<b>9.7%</b>	<b>14.1%</b>	<b>11.8%</b>	<b>0.1%</b>	<b>-0.4%</b>	<b>38.0%</b>

- Aging Population
- Greater Diversity
- Lowest population gains since the 1960's due to migration

**PIMA COUNTY POPULATION PROJECTIONS: 2012 TO 2050, MEDIUM SERIES**  
**POPULATION SHARE BY RACE/HISPANIC ORIGIN**

Year	NON-HISPANICS						HISPANICS					
	White	Black	Asian	American	Other	Total	White	Black	Asian	American	Other	Total
2012	54%	3%	3%	2%	2%	65%	19%	0%	0%	1%	14%	35%
2015	53%	3%	3%	2%	2%	63%	20%	0%	0%	1%	15%	37%
2025	48%	3%	3%	2%	2%	59%	22%	0%	0%	1%	17%	41%
2035	43%	3%	4%	2%	2%	55%	25%	1%	0%	1%	19%	45%
2045	39%	3%	4%	2%	2%	51%	27%	1%	0%	1%	20%	49%

Arizona Department of Administration, Office of Employment & Population Statistics, 12/07/2012

# DEMOGRAPHICS

## Pima County 15 Year Population Estimates

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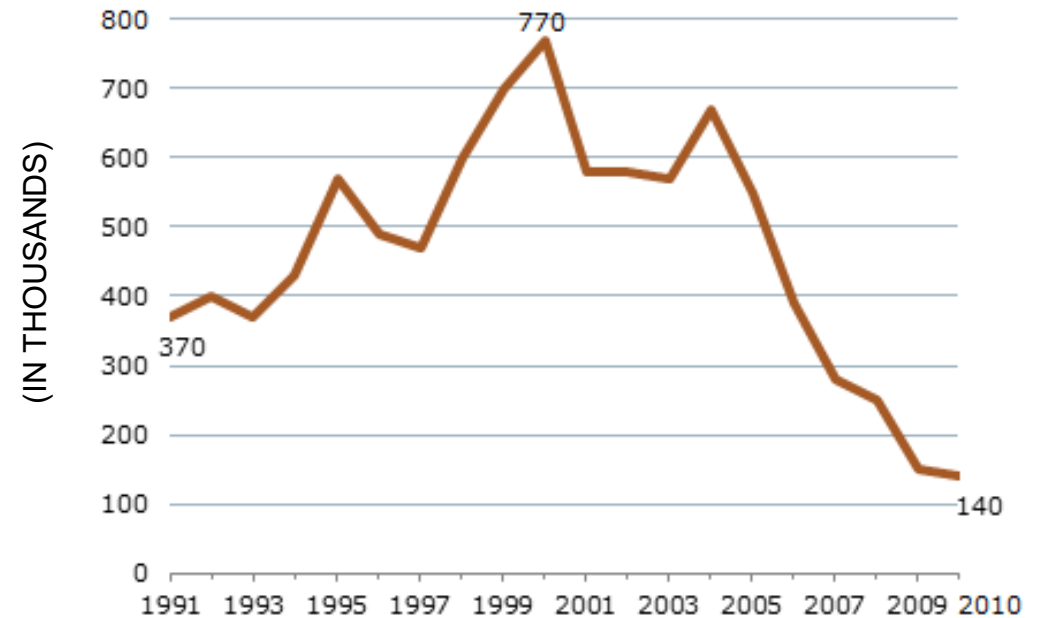
Year	Population
2015	1,022,079
2020	1,100,021
2025	1,172,515
2030	1,243,099

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<b>% Change</b>	21.6%
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## Annual Immigration from Mexico to the US: 1991 - 2010



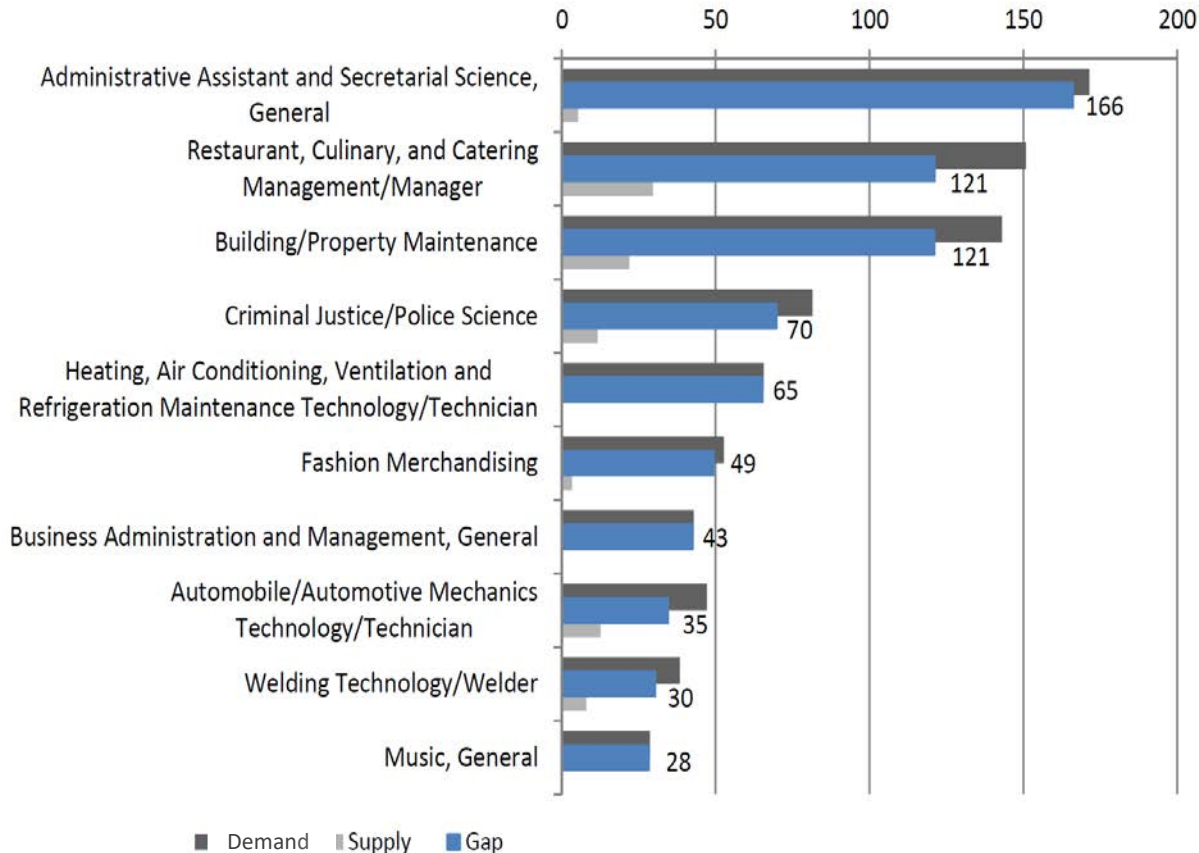
Source: Pew Hispanic Center estimates compiled from various sources; see Methodology

PEW RESEARCH CENTER



# ALIGNING PROGRAMS WITH WORKFORCE NEEDS

## SUPPLY AND DEMAND FOR PCC'S ASSOCIATES DEGREE LEVEL PROGRAMS

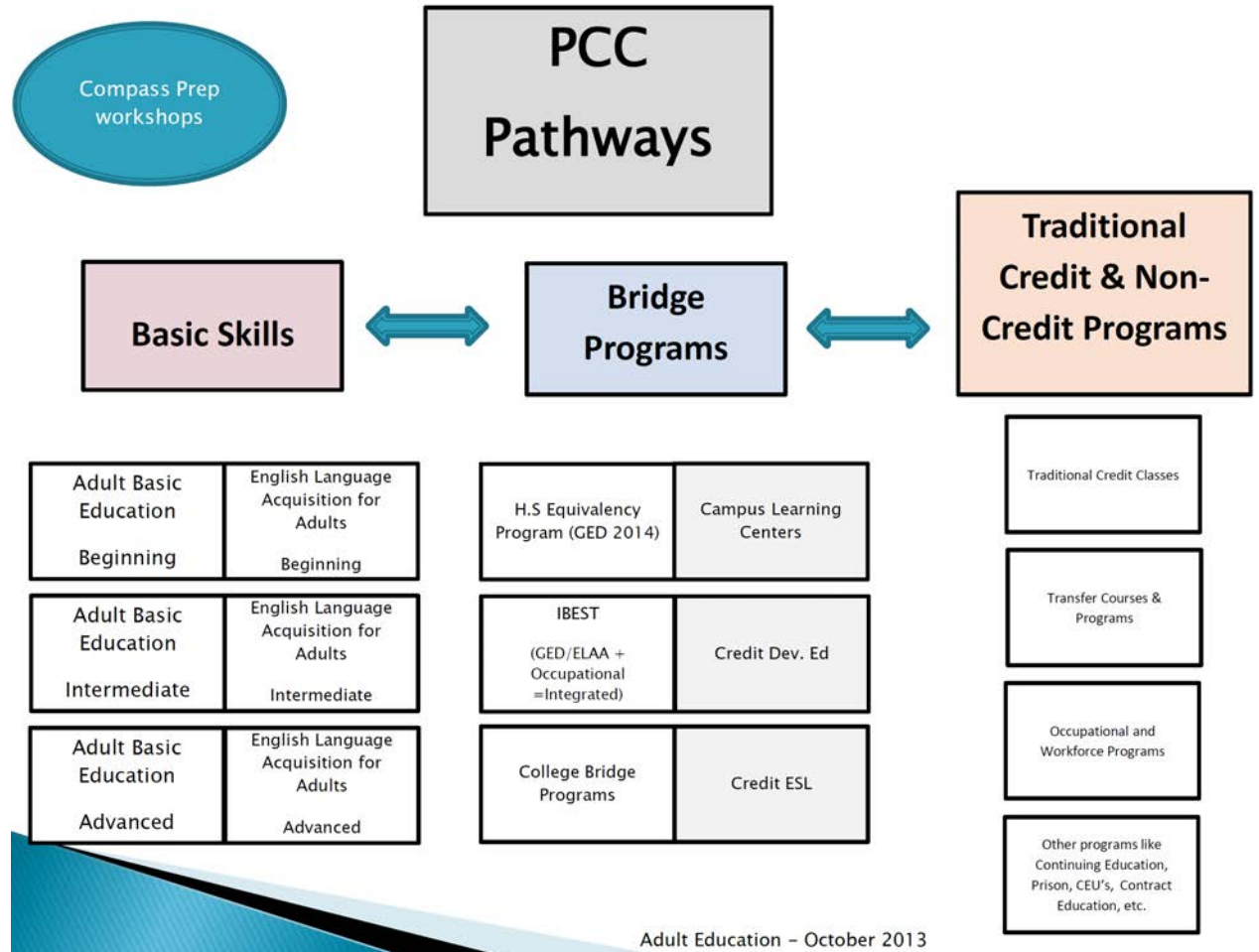


Significant gaps existed between program completions (supply) and workforce needs (demand)

- 86 programs were undersupplying market demand. WHY?
  - Mismatch between workforce credentials and PCC certificates and degrees
  - Duration of program
  - Reputation of program or relevancy of coursework
  - Lack of program awareness in the community
  - Location or access to program content
- Greatest areas of opportunity moving forward Business Services, Culinary, Construction Trades, Applied Technologies, Health Care (focus on wellness)

# GUIDED PATHWAYS

Guided Pathways
Clear roadmaps to student end goals
Default program maps → whole-program plans → block schedules
Exploratory majors
Intake system redesigned as “on-ramp” to program of study
Integrated, contextualized academic support for program “gatekeepers”
Proactive progress tracking, feedback, support



# Educational Master Plan:

# CAMPUS ANALYSIS

## Downtown Campus Strategic Focus:

- Centrally located / close to University of Arizona
- Diverse campus with transit access
- Applied Technology Center of Excellence
- Focus on industry credentialing/partnerships
- Large ESL/ developmental education need
- Large concentration of Veterans
- Greater need for enrollment and academic support services
- Need for student spaces to retain students on campus

## Downtown Campus

	High	Med High	Medium	Medium Low	Low
<b>GIS Analysis</b>					
<b>GIS Student Analysis</b>					
Student Diversity			■		
Student Dispersion	■				
Traditional Age				■	
Density of Fully Online Students			■		
<b>GIS Area Analysis</b>					
Ethnic Diversity of Area		■			
Poverty Level			■		
Veteran Density				■	
Income Distribution				■	
Educational Attainment			■		
<b>Enrollment Overview</b>					
<b>Unit</b>	<b>Fall 2010</b>	<b>Fall 2015</b>	<b>% Change</b>	<b>Space Needs</b>	
Headcount	10,443	7,012	-33%		
Annualized FTSE	2,005	1,322	-34%		
<b>Campus Capacity</b>					
<b>Space Type</b>	<b># Rooms</b>	<b>WRH</b>	<b>SSO</b>	<b>WSH</b>	<b>% Capacity</b>
Classrooms	40	30	69%	20.4	73%
Laboratories	10	39	57%	22.9	89%
<b>Occupational Demand (EMSI) and Programs</b>					
<b>Program Area</b>	<b>Award</b>	<b>Low Demand</b>	<b>High Demand</b>		
Automotive Technology	CERT, AAS	■			
Building and Construction Technologies	CERT	■			
Computer Aided Drafting/Design Technology	CERT, AAS	■			
Fraud Examination	CERT	■			
Health Information Management	AAS, CERT	■			
Machine Tool Technology	CERT, AAS	■			
Paralegal	AAS, CERA	■			
Technical Writing & Communication	CERA	■			
Translation and Interpretation Studies	CERT, AAS	■			
Welding	AAS	■			

## Educational Master Plan:

# CENTERS OF EXCELLENCE

- Provides structure and flexibility (stackable credentials, on ramps)
- Concentration of resources and specialized expertise
- Increased ability to integrate credit, non-credit, industry certifications/credentials
- Suitable for Bridge and IBEST programs using pathways
- Enhanced equipment and facilities sharing
- Enriched student engagement and cross-program understanding



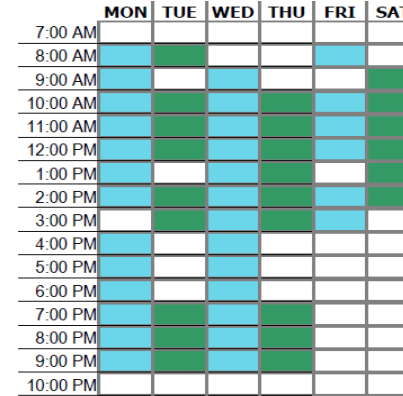
## Recommended Centers of Excellence for PCC:

- Public Safety and Emergency Services Institute
- Center for Digital and Creative Arts
- Center for Engineering and Applied Technologies
- Center for Culinary and Hospitality Management

# SPACE NEEDS ANALYSIS

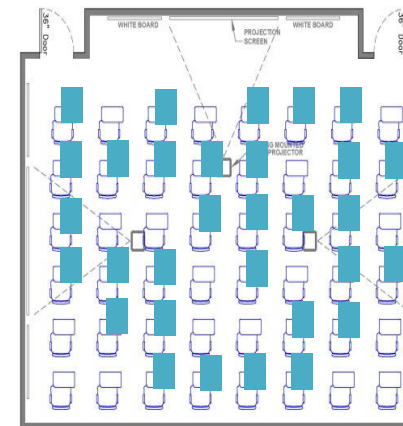
## Classroom Utilization Summary

Fall Term	Total Rooms	Without Scheduled Utilization	Average Weekly Room Hours	Hours in Use Student Station Occupancy
<b>2015</b>	<b>160</b>	<b>3</b>	<b>24.0</b>	<b>70%</b>
2104	176	2	27.0	67%
2001	161	n/a	40.0	64%
2000	177	14	35.0	68%
1999	159	15	36.0	70%
1998	142	n/a	44.0	60%
1997	142	n/a	42.0	59%



## Weekly Room Hours

The average number of hours per week a room is scheduled over a term or semester

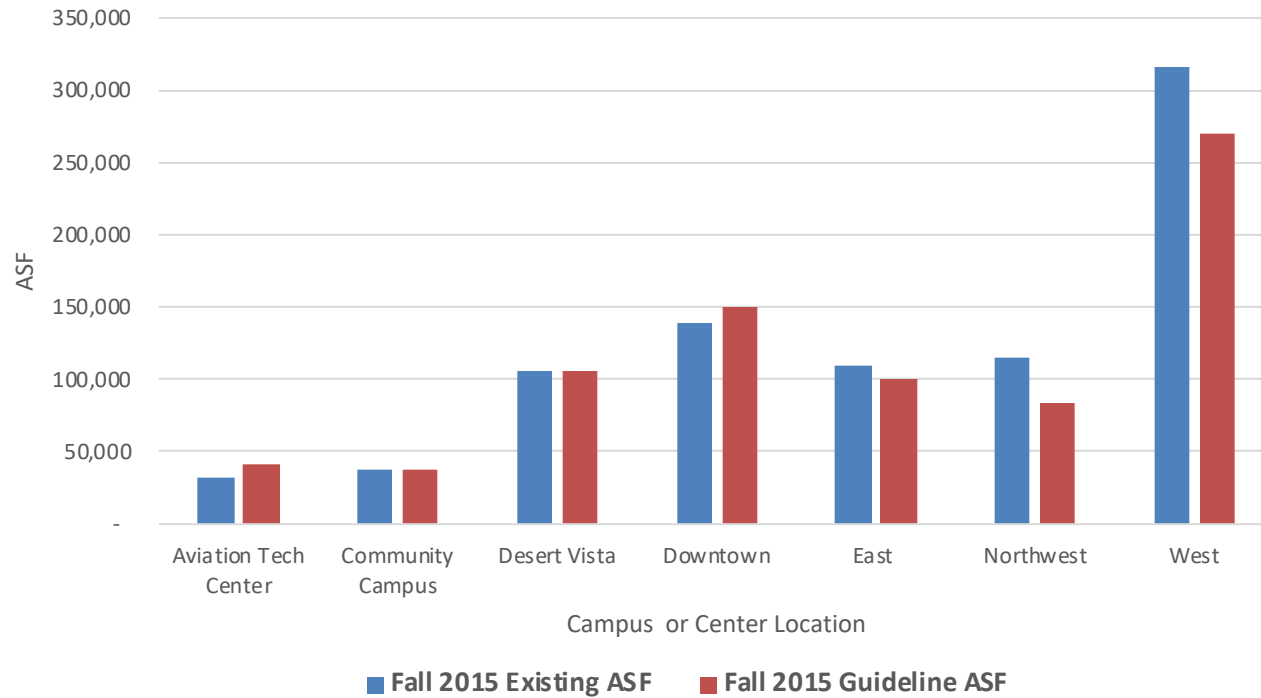


## Student Station Occupancy

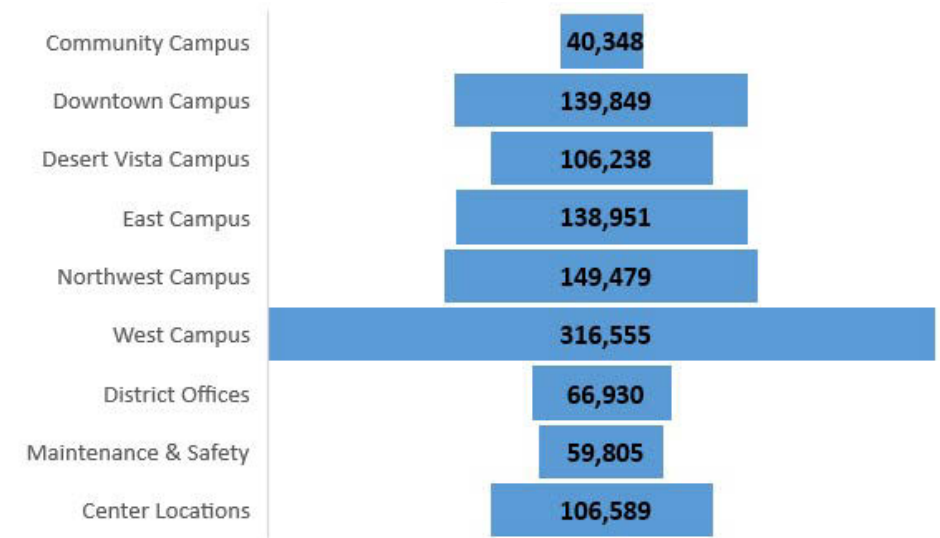
The average percent of seats filled when a room is occupied during scheduled use.

# SPACE NEEDS ANALYSIS

## Fall 2015 Space Needs Analysis By Site



## ASF of PCC Campus Facilities

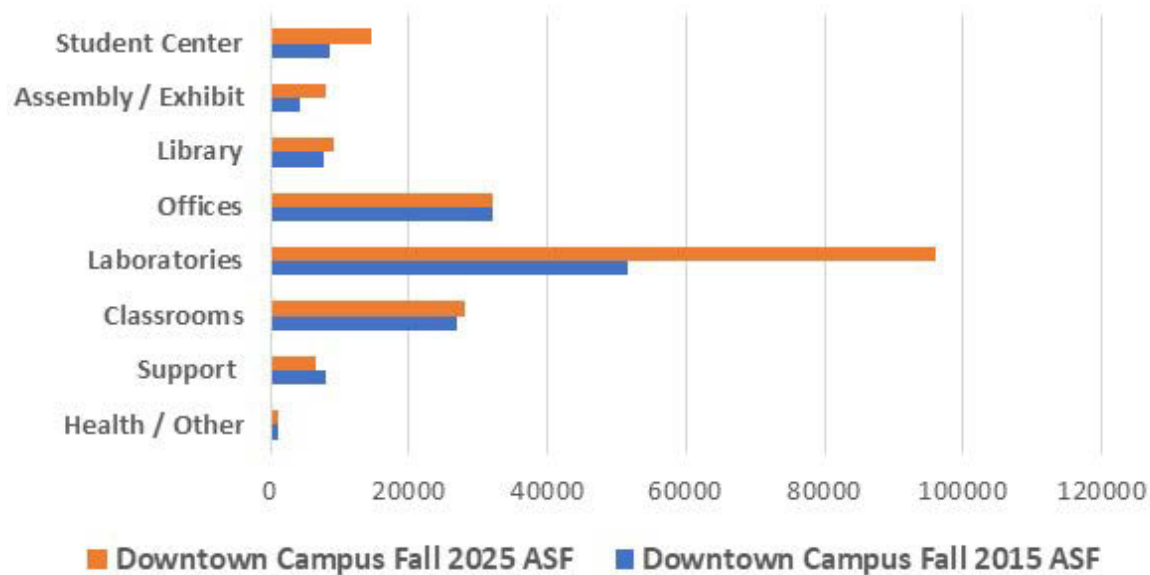


**A total of 1,124,744 Assignable Square Feet at 12 locations**



# SPACE NEEDS ANALYSIS BY SPACE TYPE AND CAMPUS

## 10 Year Space Needs for Downtown Campus



## Planning Assumptions

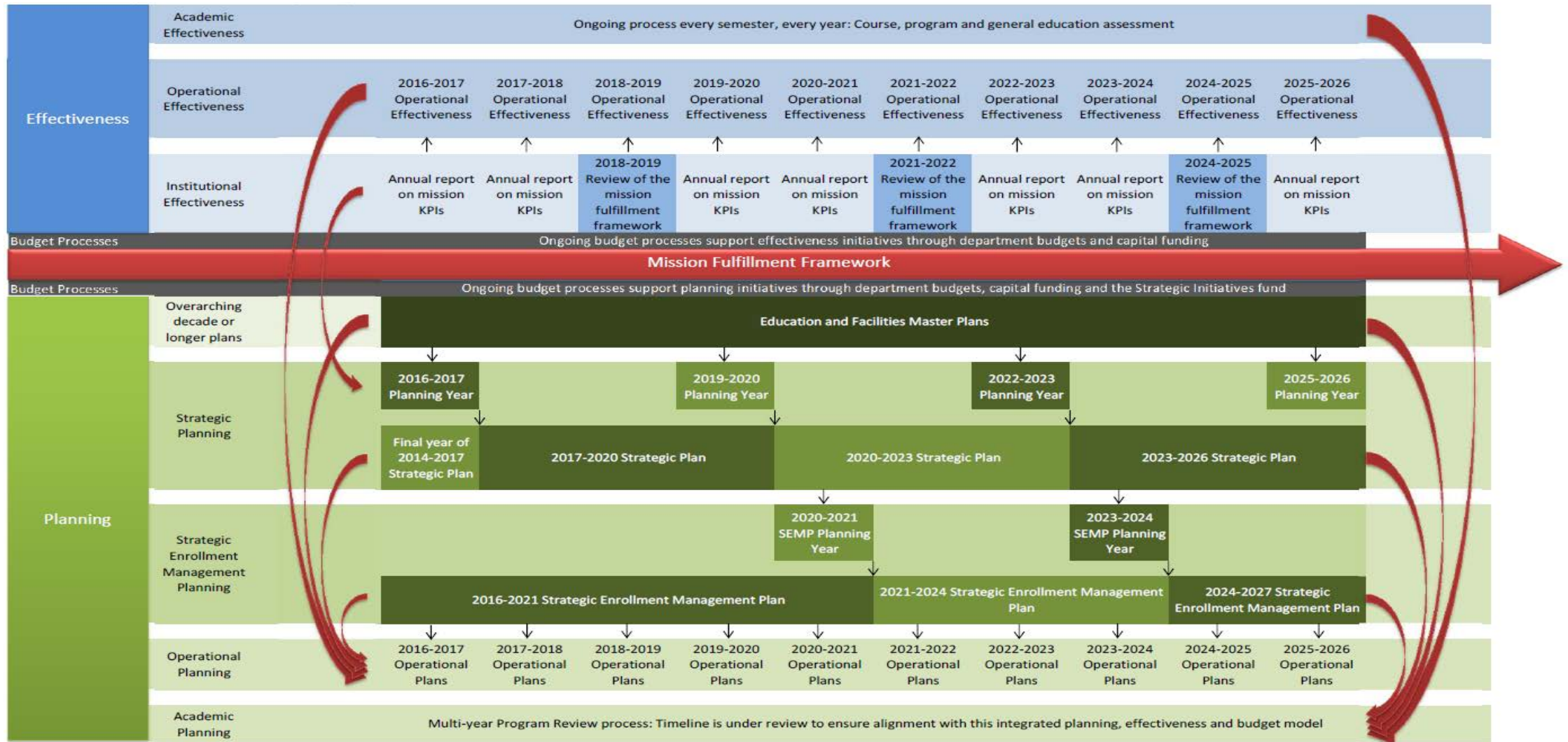
- 70% FTSE Enrollment Growth
- 37% Faculty and Staff Growth

## EMP Initiatives Factored Into Analysis

- Applied Technology Center of Excellence
- New programs in Auto Collision, Diesel, Advanced/Automated Manufacturing, Integrated Design
- Right-size welding laboratory, Automotive Tech, construction spaces
- Add Fab Lab or maker space for manufacturing and testing
- Classrooms for collaborative/active learning
- Learning Commons with more study stations
- Right-size student center to accommodate growth
- Conferencing area for business/industry partners/workforce development programs

# PCC'S INTEGRATED PLANNING, EFFECTIVENESS AND BUDGET PROCESSES

This figure summarizes the components of the planning, effectiveness and budget process at PCC. Primary connections are indicated with arrows, but all processes within this system are linked. Inputs and outputs from each process feed into the other processes within the integrated system.





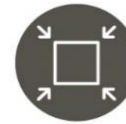
# GUIDING PRINCIPLES FOR THE PLANNING PROCESS



Align like programs and services across the district.



Use space more efficiently.



Reduce facility operating costs.



Leverage capital to renovate facilities to create modern, flexible, learning environments.



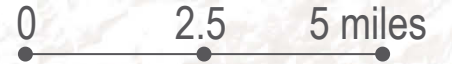
Establish centers of excellence to attract students.



Plan for increased enrollment.

# PCC SERVICE REGION

Oro Valley



Picture Rocks

Santa Catalina Natural Area

## COMPREHENSIVE:

- 6 campuses
- 8 centers

## PROCESS INCLUDED:

- GIS Analysis
- Facility Analysis
- Program Review
- Space Needs
- Optimization
- Reuse Strategies

Saguaro National Park

Casas Adobes

Catalina foothills

Flowing Wells

Tucson Mountain Park

Tucson

South Tucson

Tucson Estates

Air Force Base

Drexel Heights

Tucson International Airport



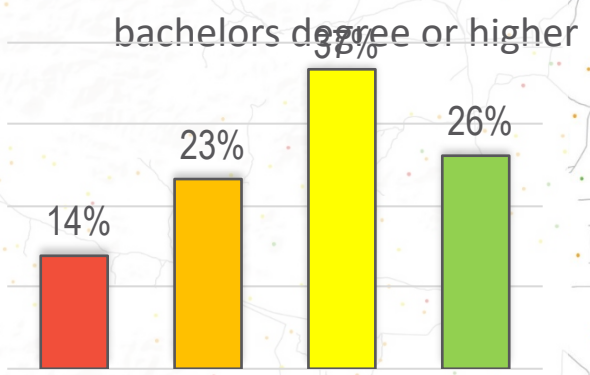
# EDUCATIONAL ATTAINMENT

**CENSUS (2013 TRACT DATA)**  
(1 dot = 10 people)

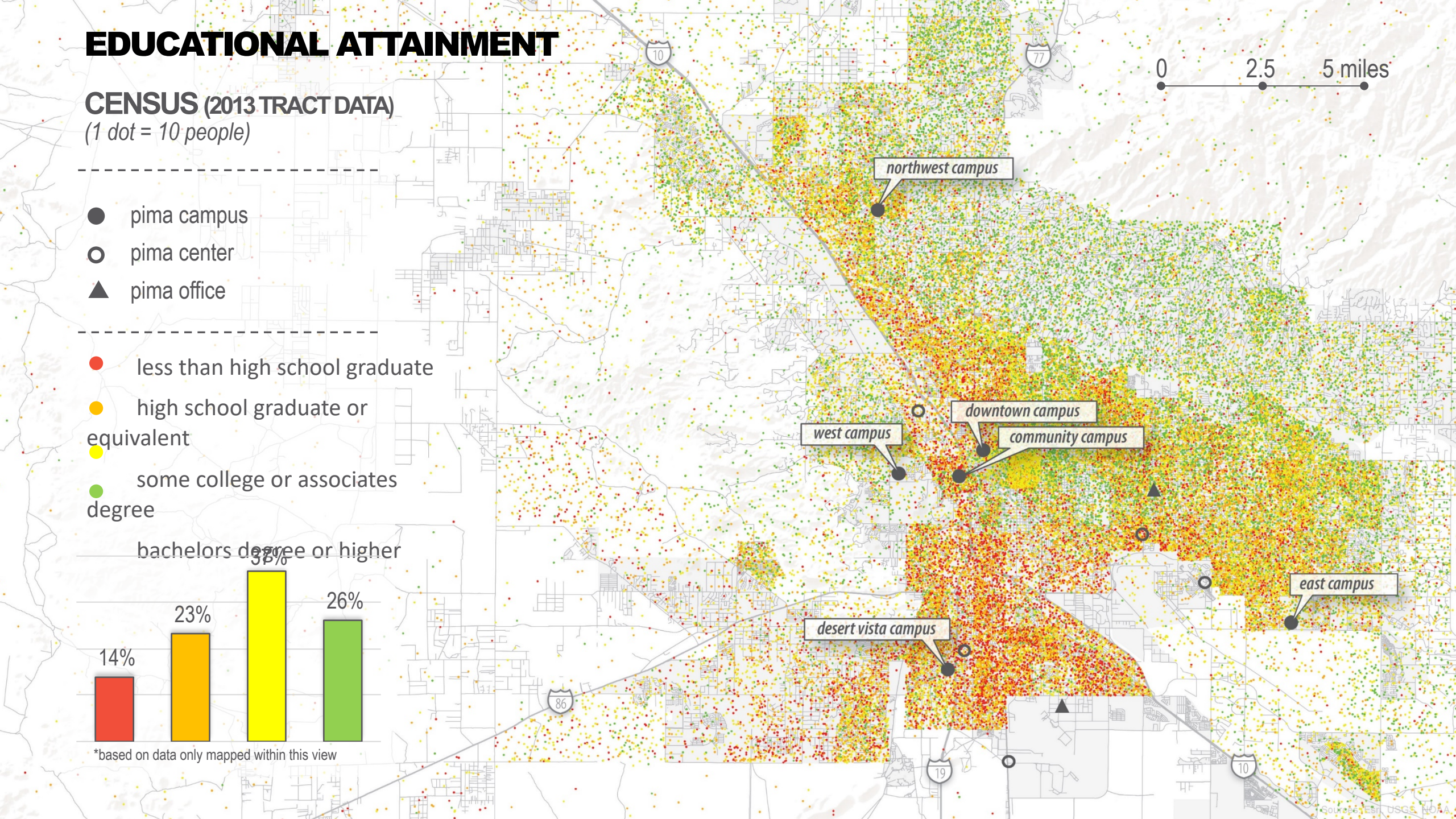


- pima campus
- pima center
- ▲ pima office

- less than high school graduate
- high school graduate or equivalent
- some college or associates degree
- bachelors degree or higher



\*based on data only mapped within this view



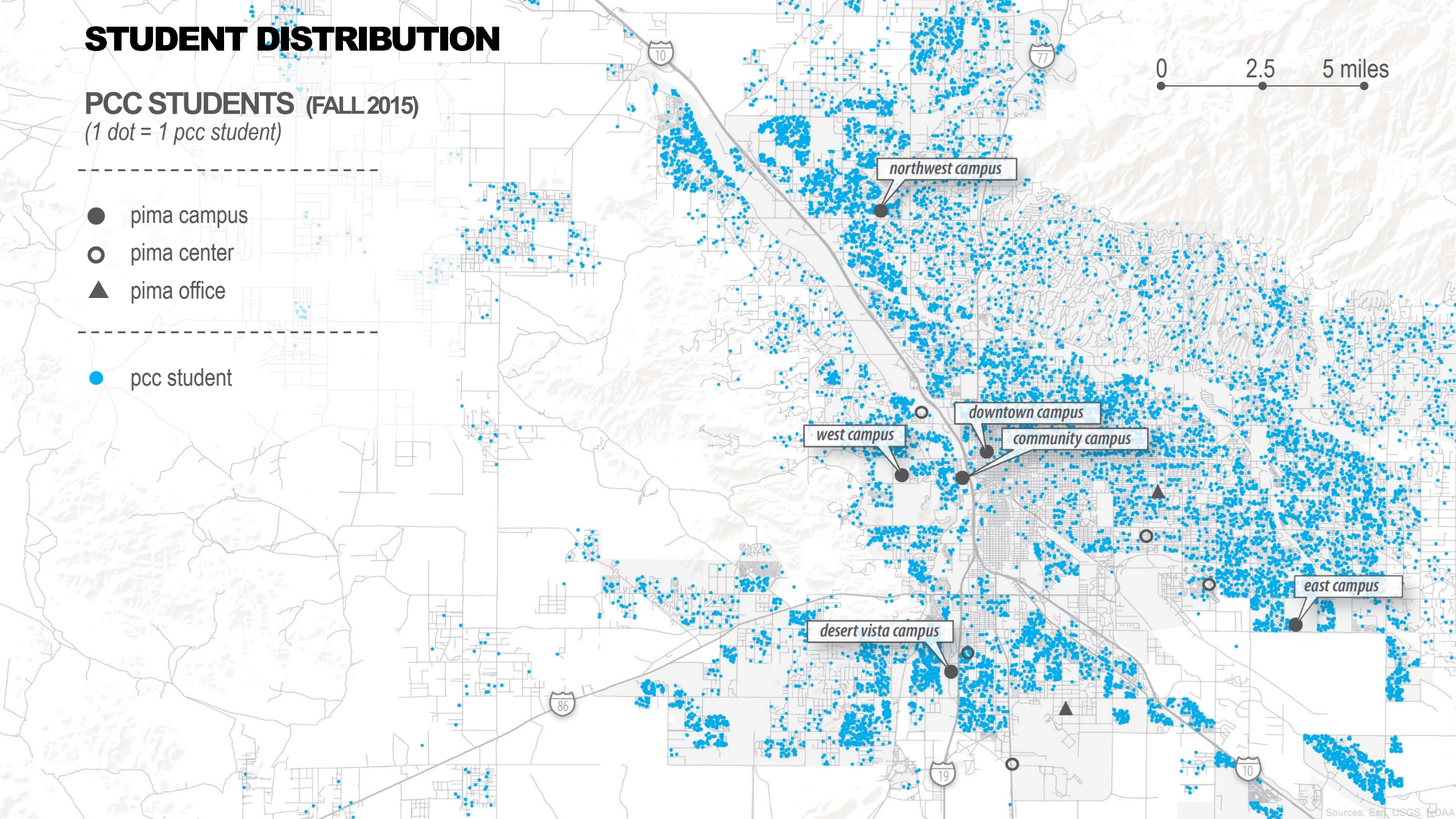


# STUDENT DISTRIBUTION

**PCC STUDENTS (FALL 2015)**  
(1 dot = 1 pcc student)

- pima campus
  - pima center
  - ▲ pima office
- 
- pcc student

0 2.5 5 miles





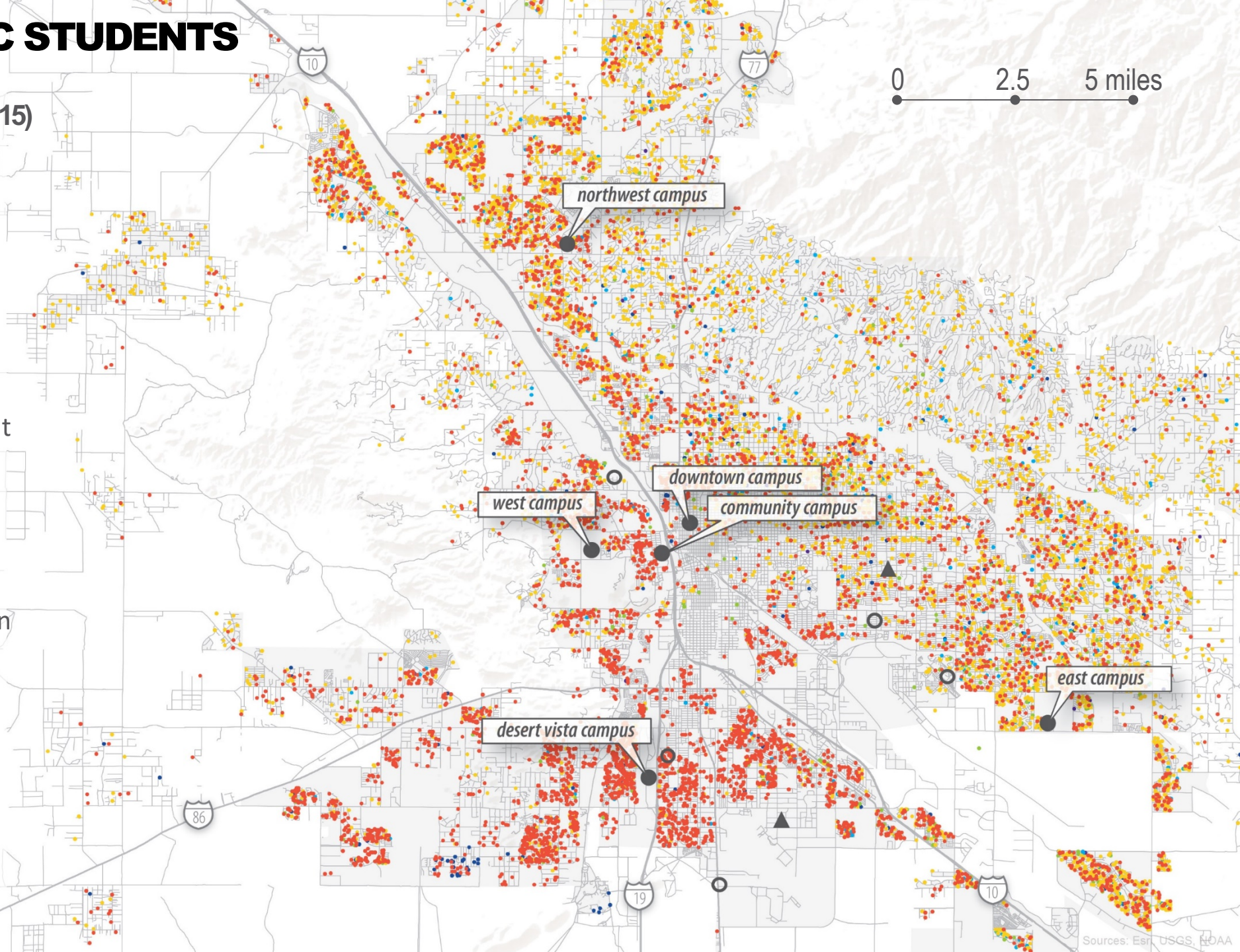
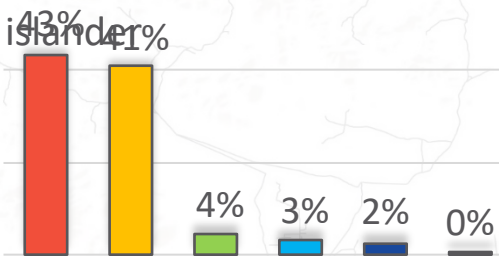
# ETHNICITY OF PCC STUDENTS

## PCC STUDENTS (FALL 2015)

(1 dot = 1 pcc student)

- pima campus
- pima center
- ▲ pima office

- hispanic/latinx pcc student
- white pcc student
- black pcc student
- asian pcc student
- american indian or alaskan native
- native hawaiian or pacific islander





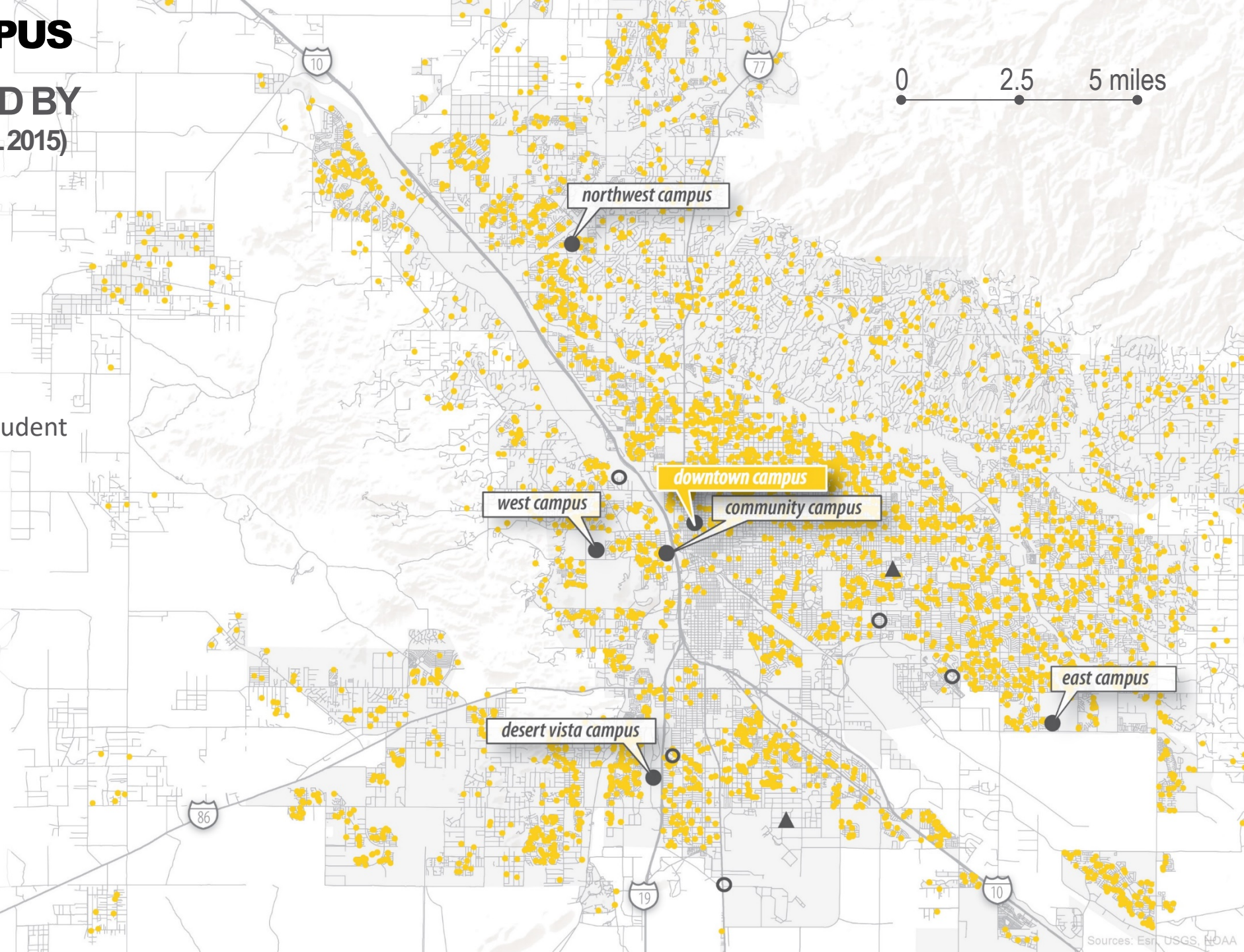
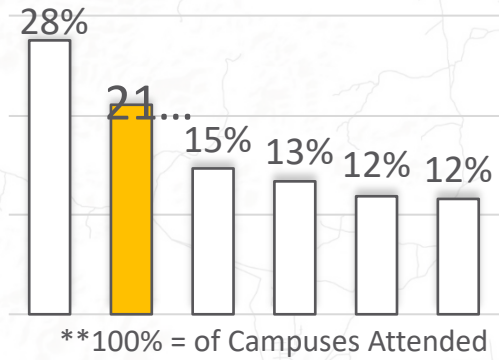
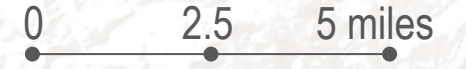
# DOWNTOWN CAMPUS

## LOCATION ATTENDED BY PCC STUDENTS (FALL 2015)

(1 dot = 1 pcc student)

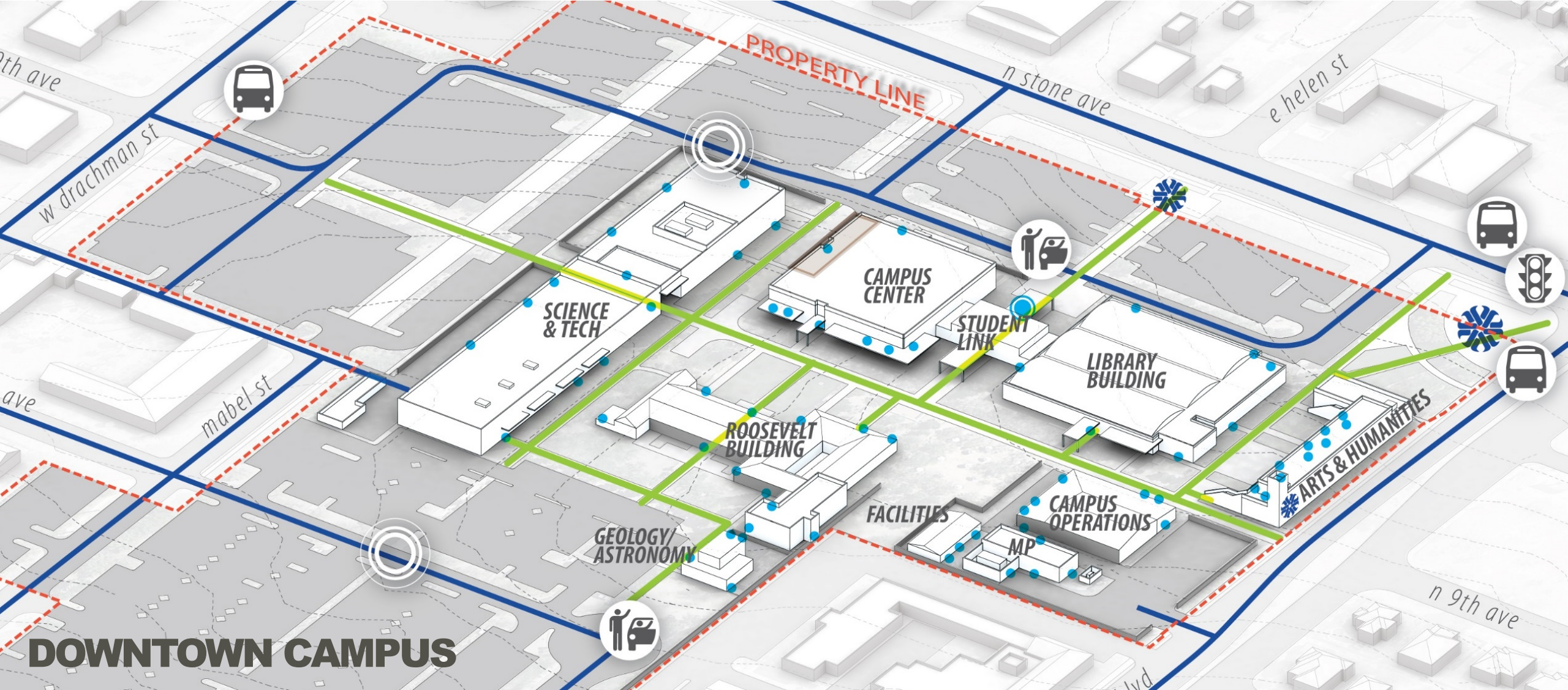
- pima campus
- pima center
- ▲ pima office

● downtown campus pcc student





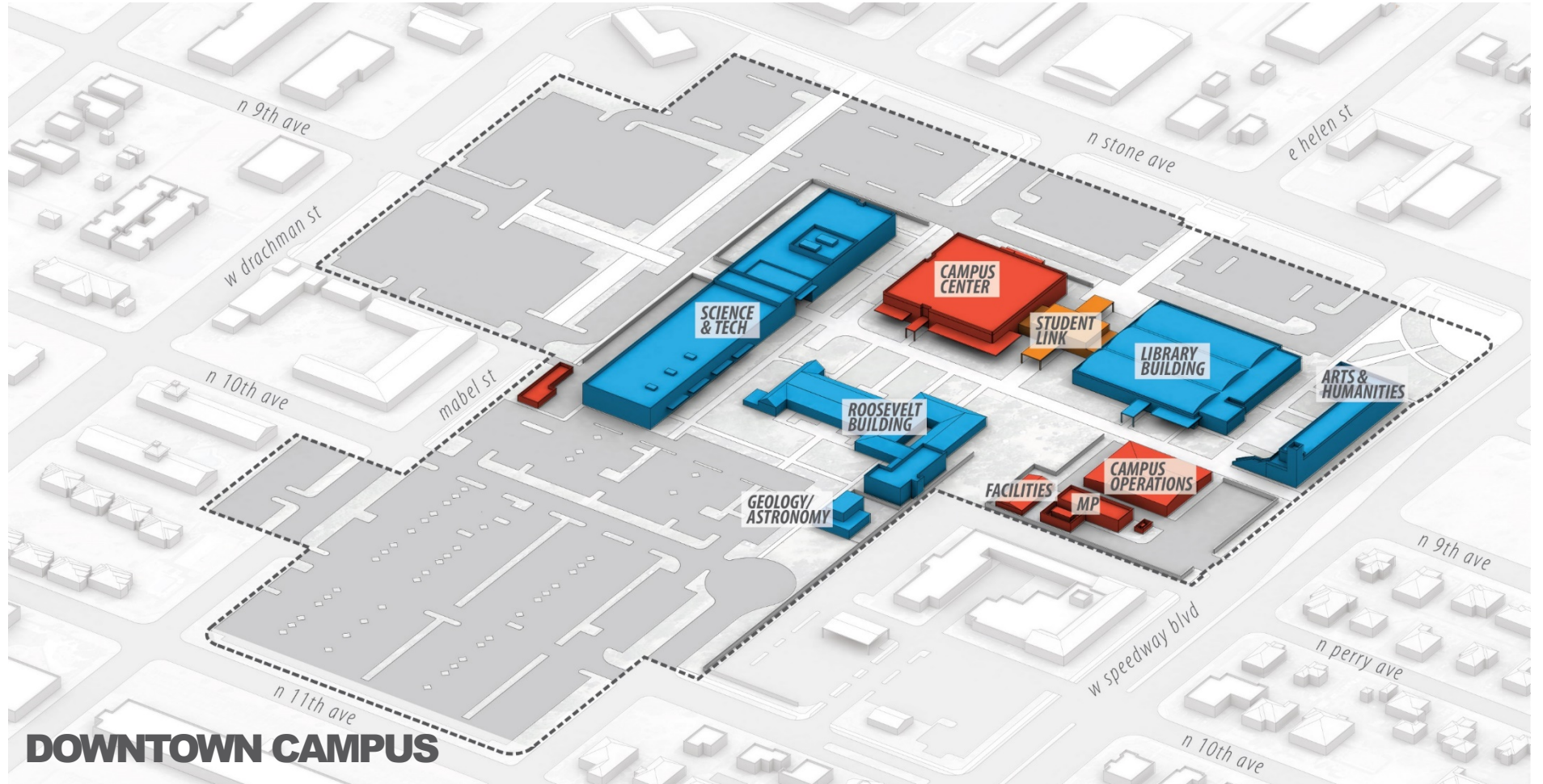
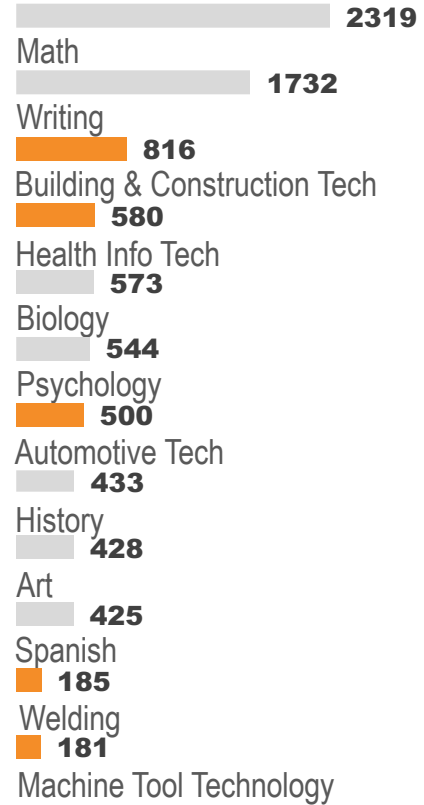
# CAMPUS SITE ANALYSIS





# CAMPUS PROGRAM ANALYSIS

## Academic Programs





# DISTRICT-WIDE RECOMMENDATIONS

PCC allowed all assets to be considered as part of the master planning effort which provided the opportunity to propose dynamic and transformational changes across the District.



Augment student / academic success areas to increase engagement and retention.



Create efficiencies in student self-service admissions areas.



Increase developmental education.

# PROGRAMMATIC INTEGRATION WITH EMP

The recommendations align directly with the programmatic goals outlined within the Educational Master Plan. This enabled strategies specific to existing campus facilities.

## Academic Framework:

- Centers of Excellence – identification of physical hubs for COE model
- Program Alignment – reduced duplication between campuses
- Distributed Models – definition of programs requiring multiple sites

## Potential New Programs:

- Guided Pathways – realignment and/or development of new programs across district to promote educational efforts
- Partnerships – new spaces to encourage external industry engagement

# CONSOLIDATION & REALIGNMENT STRATEGIES

## RELOCATE TO CAMPUS

### From Community Campus:

- Workforce & Business Development

### From Northwest Campus:

- Opportunity for Hotel Restaurant Management

## RELOCATE AWAY FROM CAMPUS

### To West Campus:

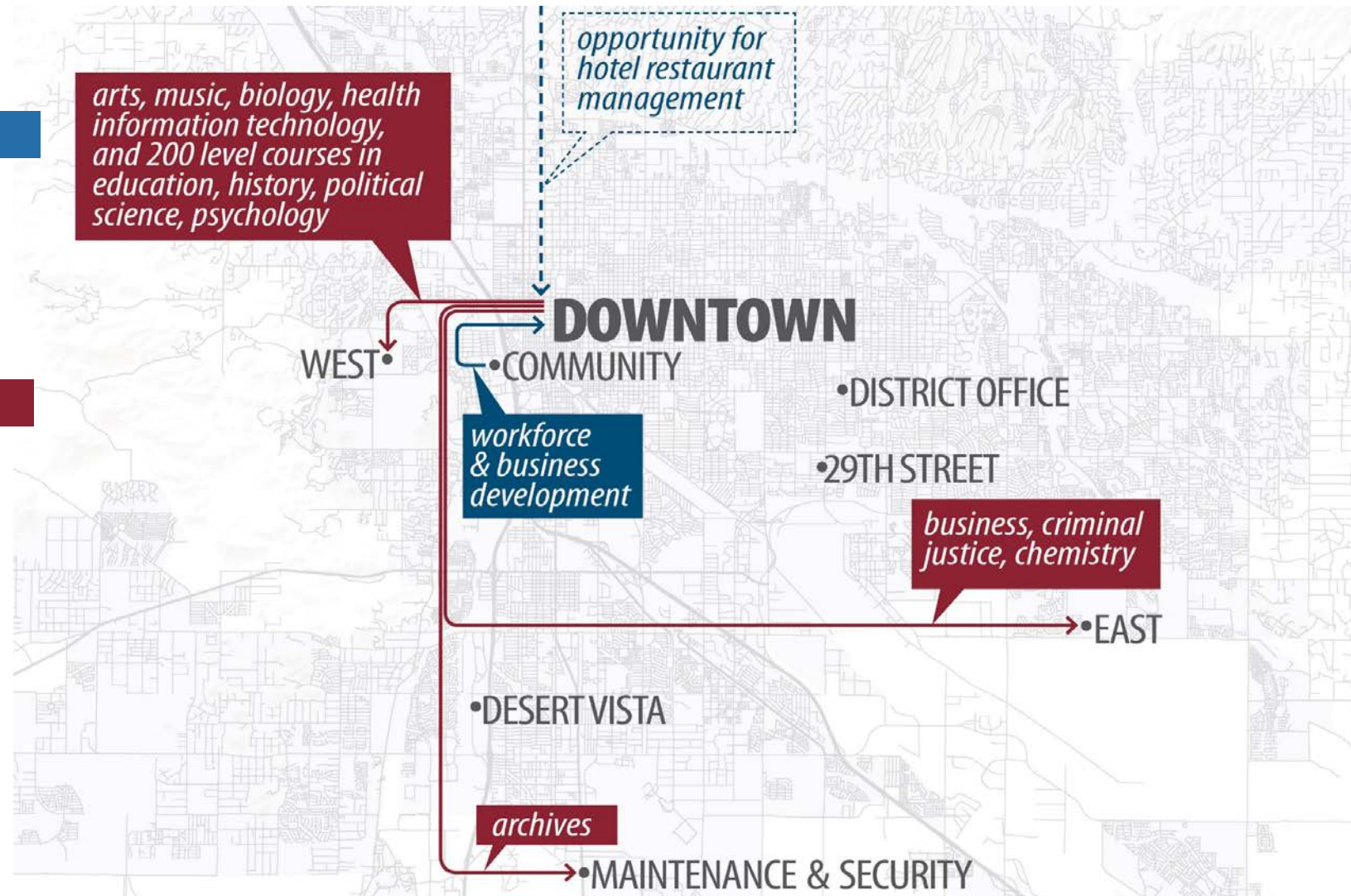
- Arts & Fashion Consumer Sciences
  - **from Recommendation 7.4 of EMP**
- Health Information Management
  - **from Recommendation 7.8 of EMP**
- Music, Biology
- 200 level Education

### To East Campus:

- Business, Criminal Justice, Chemistry

### To Maintenance & Security:

- Archives



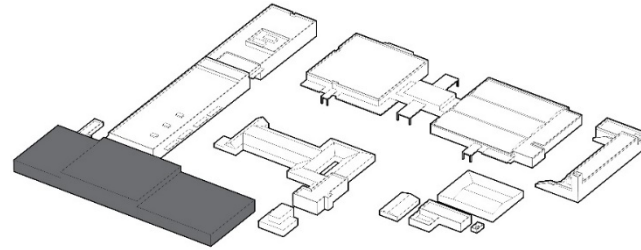


# SOLUTION DEVELOPMENT

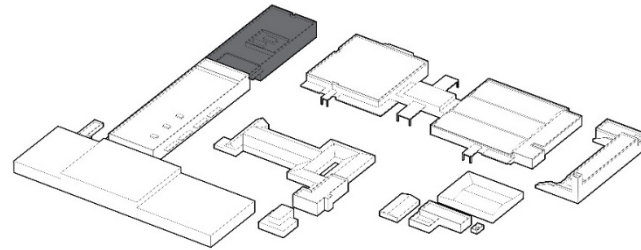
Implementable strategies to re-purpose existing campus spaces for improved student success.



*New Automotive /  
Transportation Technologies  
Building.*




*New Maker Space,  
Design / Engineering /  
CAD Labs.*

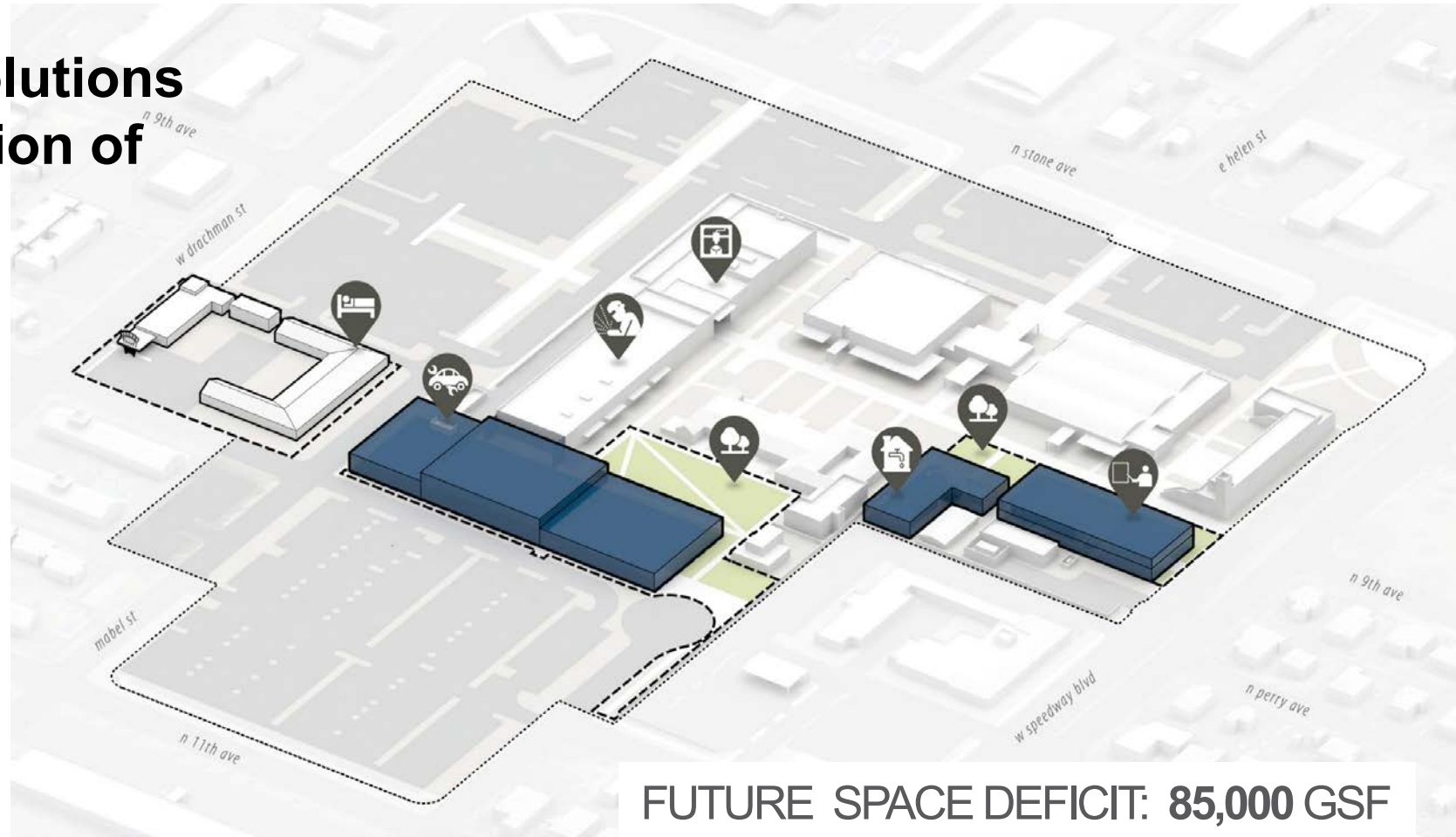


# FEASIBILITY & IMPLEMENTATION STUDY

Realistic yet innovative solutions to accelerate implementation of Facilities Master Plan.

## PHASE 1: NEAR TERM PROJECTS

-  Automotive/ Transportation Technologies Building  
(from Recommendation 7.5 of EMP)
-  Landscape/Quad Improvements
-  Expanded Welding, Building Construction, Trades,  
(from Recommendation 7.5 of EMP)
-  New Maker Space, Design/Engineering/CAD Labs  
(from Recommendation 7.12 of EMP)



FUTURE SPACE DEFICIT: 85,000 GSF

# LESSONS LEARNED

## Concurrent facilities and educational plans

- Best strategy for gaining consensus and providing the administration with data driven decisions

## Integration between the Educational and Facilities Master Plan Consultants

- Unique team collaboration opportunities and non-competing comprehensive results

# LESSONS LEARNED

**Initiate more provocative ideas in the master planning process as they elevate the educational plan**

- Push the boundaries of the established academic and physical infrastructures

**Structure an effective leadership team comprised of administration, operations, and faculty members**

- The leadership team must understand the needs, expectations, and timelines to be successful
- Identify the needs in the RFP – Establish clear guidelines for the college and the consultant(s) teams

**Measure the planning outcomes every five years to continuously align educational and operational plans into the overall strategic plan**

# EARLY SUCCESSES

Following the presentation to the Governing Board, PCC has already celebrated a number of early successes:

## Educational Master Plan Priorities and Timelines

- Established by Executive Leadership Team
- Guided the decisions and recommendations of the Facilities Master Plan

## Dental Laboratory Technology – Dental Hygiene Clinic

- Example of Center of Excellence model

## Center of Excellence Summits

- Included input from Industry/Business Partners, Faculty, Staff and Students
- Programming Services

## District Master Plan Forums

- Received district-wide feedback on Educational and Facilities Master Plan recommendations
- Published responses

**10-year Master Plan adopted by Governing Board**  
**\$65M Revenue Bond**  
**\$20M Governor's Budget**



# EARLY SUCCESSES

## Educational Master Plan Implementation

- Actively engaging with partners to match education and training with jobs incorporating current labor market information
- Working with industry subject matter experts to help develop in-depth competency-based curricula and credentials
- Building local, regional, and national partnerships
- Program Review (3-yr cycle)
- Block Scheduling/Consistent Start Times
- Guided Pathways
- PimaOnline Expansion

## Facilities Master Plan Implementation

- Real Estate acquisitions – expanding Downtown Campus footprint
- Center of Excellence - Applied Technology
  - Programming Services
  - Design
- Center of Excellence – Allied Health
  - Programming Services
- Center of Excellence – Public Safety
- Center of Excellence – Information Technology
- Partnerships with K-12 School Districts and State Universities/Colleges

# KNOWLEDGE SHARING

Partner with your neighbors in groups of 3.

## **Discuss:**

The primary challenges and opportunities your institution has faced in the past or may face in the future as you work to promote an integrated planning model.  
(5 Minutes)

## **Report Out:**

Share key insights.

# Q & A

# PAULIEN & ASSOCIATES HAS MERGED WITH SMITHGROUP!

PAULIEN & ASSOCIATES

+ SMITHGROUP

# CONTACT US



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