



Puerto Rico's Reconstruction & Business Opportunities

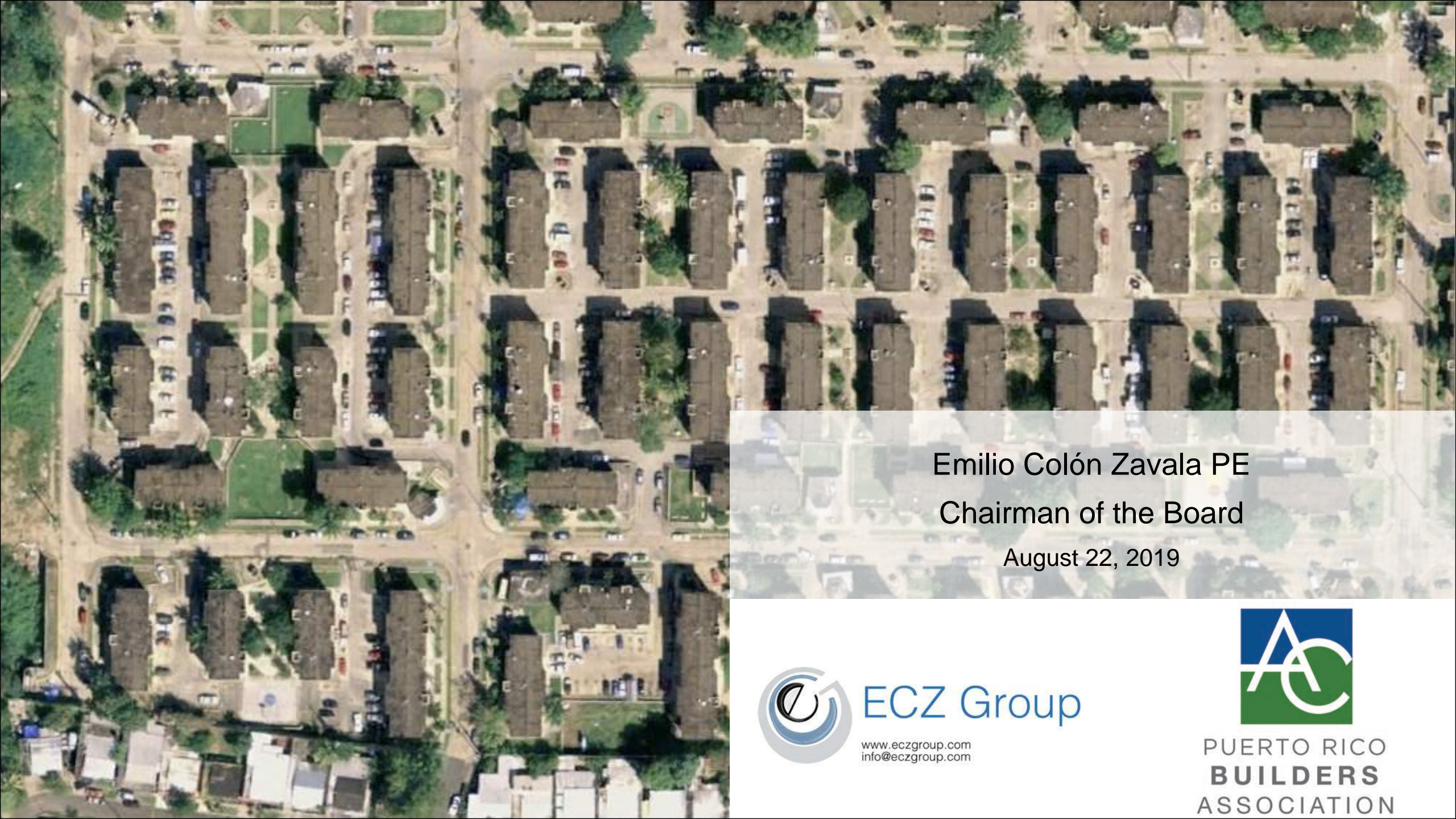


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PUERTO RICO
BUILDERS
ASSOCIATION



Emilio Colón Zavala PE
Chairman of the Board

August 22, 2019



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RAW LAND = 83.75%



DEVELOPED LAND = 16.25%





FORMAL = 7.27% (45%)



INFORMAL = 8.98% (55%)





ONE ISLAND



TWO WORLDS

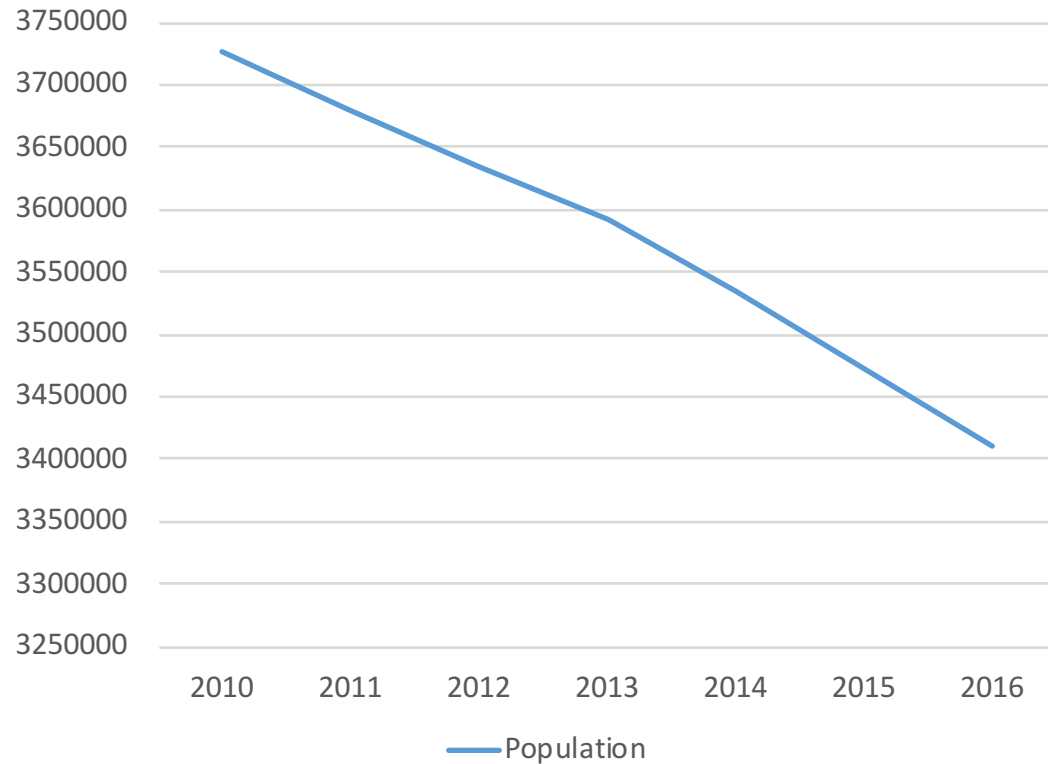


The Affordability Problem (Prior to 2017 Hurricanes)

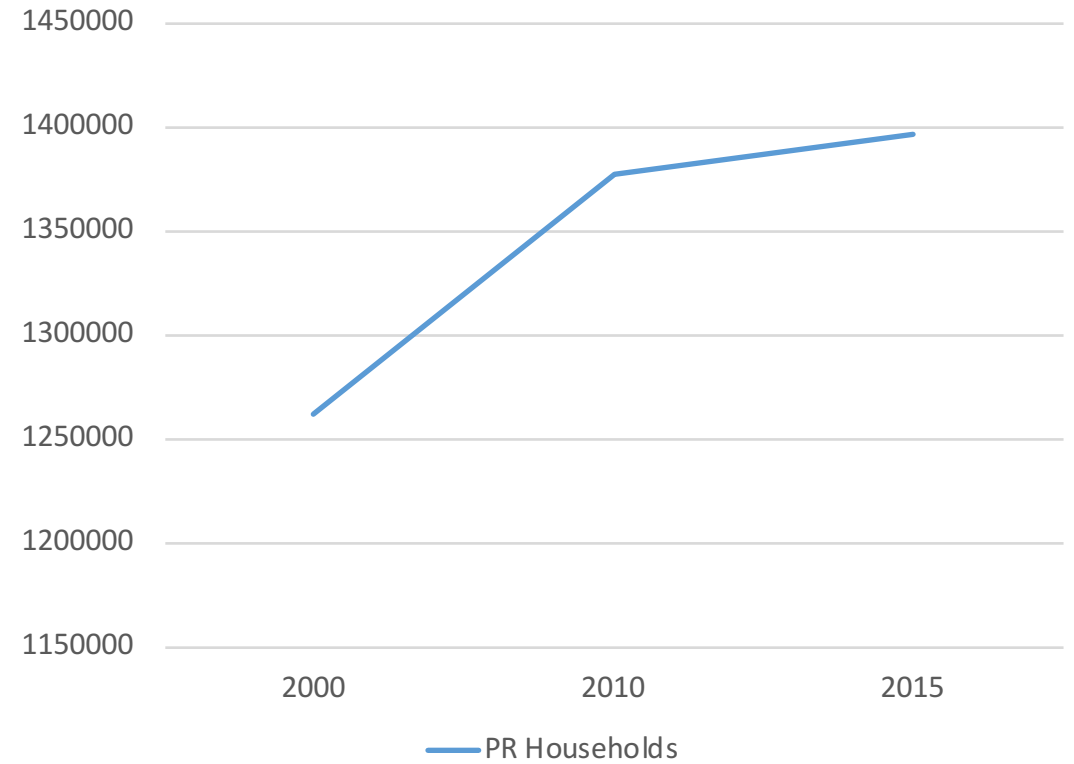
SOCIAL INTEREST HOUSING @ \$110,000	RURAL LOAN	FHA LOAN
	102%	97.5%
MORTGAGE PAYMENT (P&I) @ 3.75%	\$519.82	\$500.20
Hazard Insurance	\$24.67	\$23.73
Mortgage Insurance / Other	\$37.10	\$118.42
TOTAL MONTHLY COST	\$581.59	\$642.35
EVIDENCABLE MONTHLY INCOME NEED TO QUALIFY=	\$1,661.69	\$1,835.29
YEARLY=	\$19,940.23	\$22,023.43
FUNDS NECESARRY FOR DOWN PAYMENT		
DOWN PAYMENT	-0-	\$3,850.00
Registry fees	\$809.98	\$793.03
Sellos y Comprobantes	\$291.02	\$284.32
Insurance and Title Fees	\$400.61	\$390.05
Notary Fees	\$631.22	\$610.05
Appraisal	\$375.00	\$375.00
Certificates, CRIM, Survey	\$115.00	\$115.00
Reserve and Pre-paid interests	\$543.03	\$759.24
TOTAL UP FRONT DOWN PAYMENT	\$3,165.86	\$7,176.69

Demographic Challenge

PR Population



PR Households



Households Data

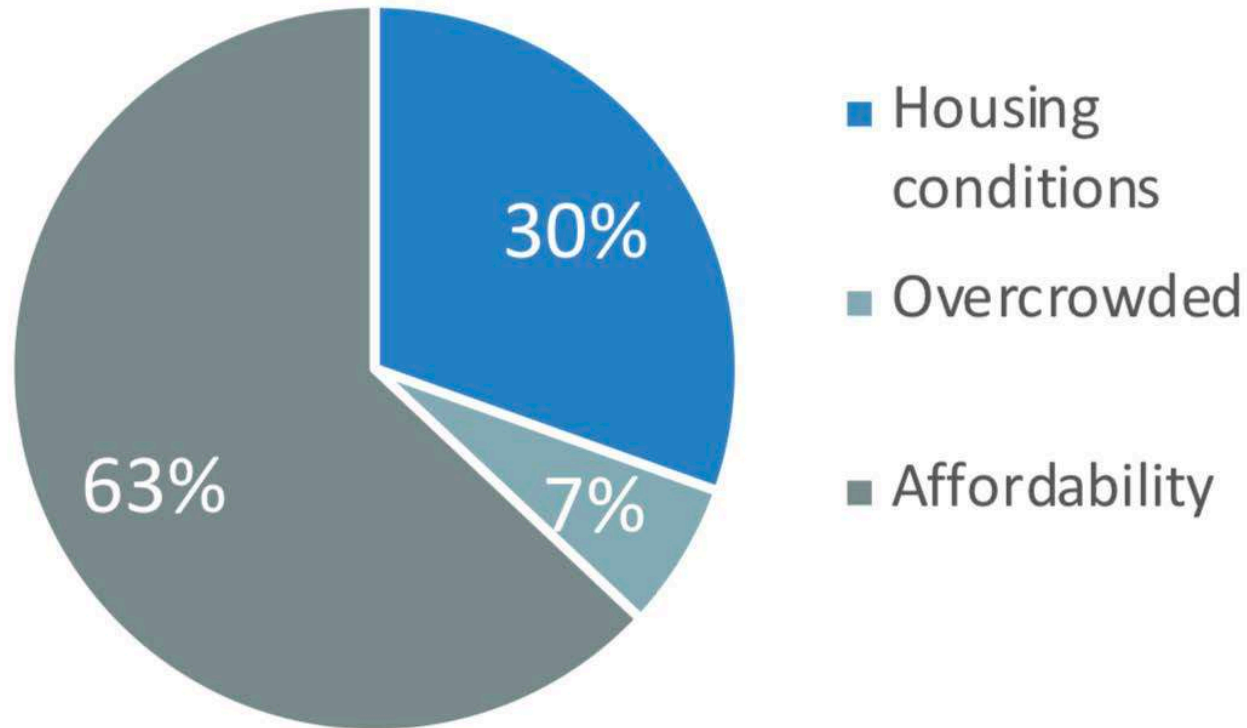
PR Households Age Group

Age Group	2000	2010	2015	2010-2015
<25	52,299	35,142	33,284	-1,859
25-44	463,297	432,446	399,995	-32,451
45-64	462,152	547,243	545,811	-1431
65+	278,532	361,700	416,695	54,996
TOTALS:	1,256,280	1,376,531	1,395,785	19,254

Number of Households per Income Group

Income	2015	Percentage
< \$10,000	404,713	32.5%
\$10K - \$15K	165,163	13.3%
\$15K - 25K	257,059	20.7%
\$25K - \$35K	170,112	13.7%
\$35K - \$50K	160,738	12.9%
\$50K - \$75K	132,279	10.6%
\$75K - \$100K	50,101	4.0%
\$100K - \$150K	34,877	2.8%
\$150K - \$199K	11,240	0.9%
\$200,000+	9,504	0.8%
TOTAL:	1,395,785	

Housing Burdens by Type



- 430,000 households (30.8%) present burdens
- Average Family can Afford \$99,000 Mortgage



The Aftermath.....

35,000 Homes Completely Destroyed

180,000 Homes Partially Destroyed

80% of Crops Destroyed

NEXRAD Doppler Radar Lost

100% of Clients Lost Electrical Power

95% of Clients Lost Water & Sewer Service

95% of Clients Lost Cellphone Service

85% of Clients Lost Landline Telecomm.



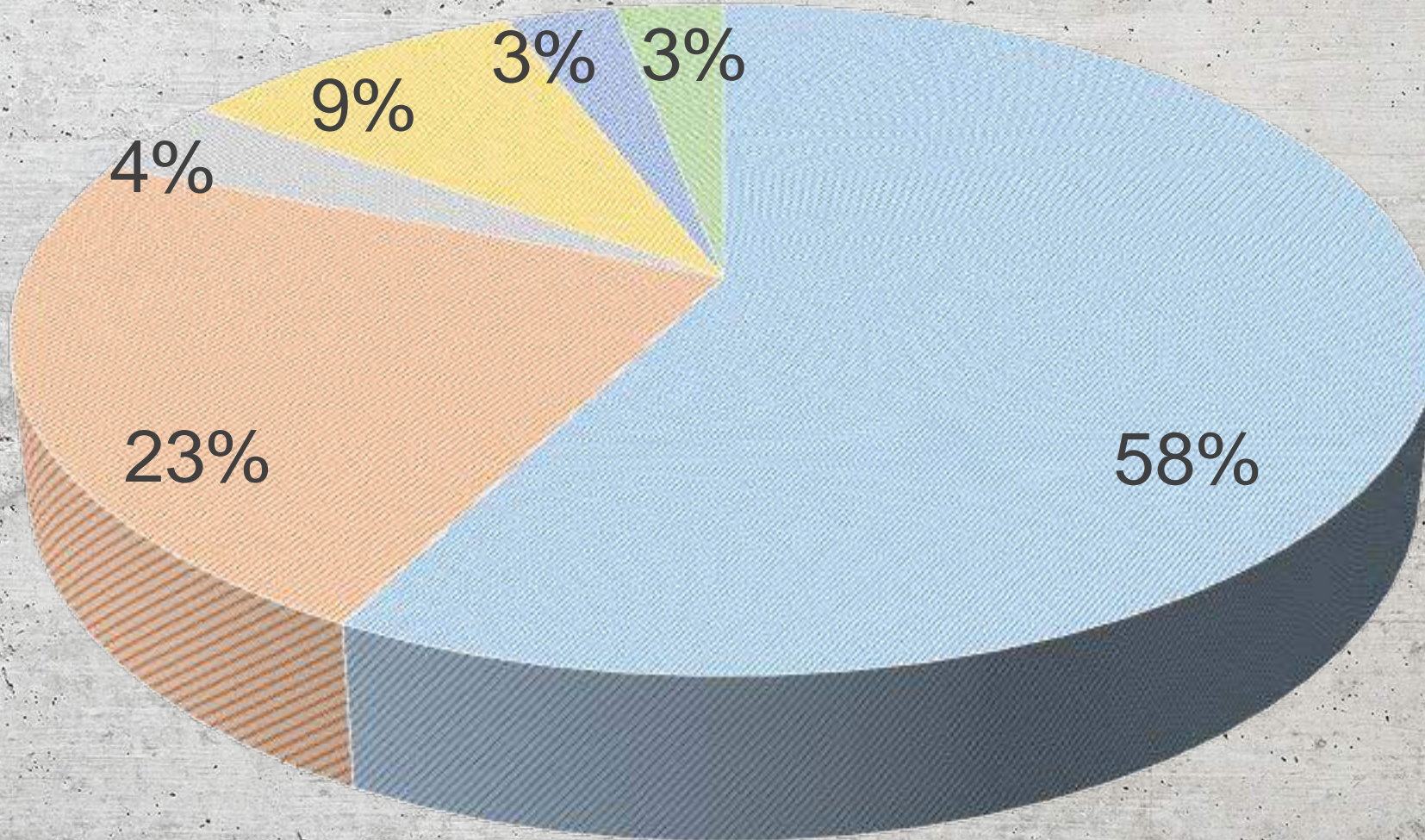
The need for remediation of Puerto Rico's infrastructure is clearly evident



98% of formally built homes sustained little to no damage

ALLOCATIONS (\$82 BN)

- FEMA - PA (\$48bn)
- FEMA Individual (\$3.2bn)
- USACE (\$2.5bn)
- CDBG-DR (\$19.9bn)
- Private Insurance \$8bn)
- Other (\$2.5bn)



Top Priorities of Rebuilding Plan

Housing

- 87.5% of estimated damages

Infrastructure (transport, ports, social infrastructure, others)

- transport, ports, social infrastructure, others

Utilities (energy, water, telecommunications)

- energy, water, telecommunications

Health (hospitals, primary care, wellness)

- hospitals, primary care, wellness

Economic Development (DMO, InvestPR, DDEC)

- tourism
- knowledge Economy
- agro-industries
- manufacture

Federal Reconstruction Program



- Housing
 - Repair / Reconstruction Program
 - Safe Home Voucher (Relocation)
 - Leverage CDBG-DR for LIHTC
 - Resiliency Measures
 - Mortgage Catch Up
- Infrastructure
 - Flood Control Projects
 - Roads, Bridges Reconstruction
 - Electrical Grid Reconstruction
- Economic Development
 - DMO / Invest PR
 - Small Business Loans



Tourism Opportunities

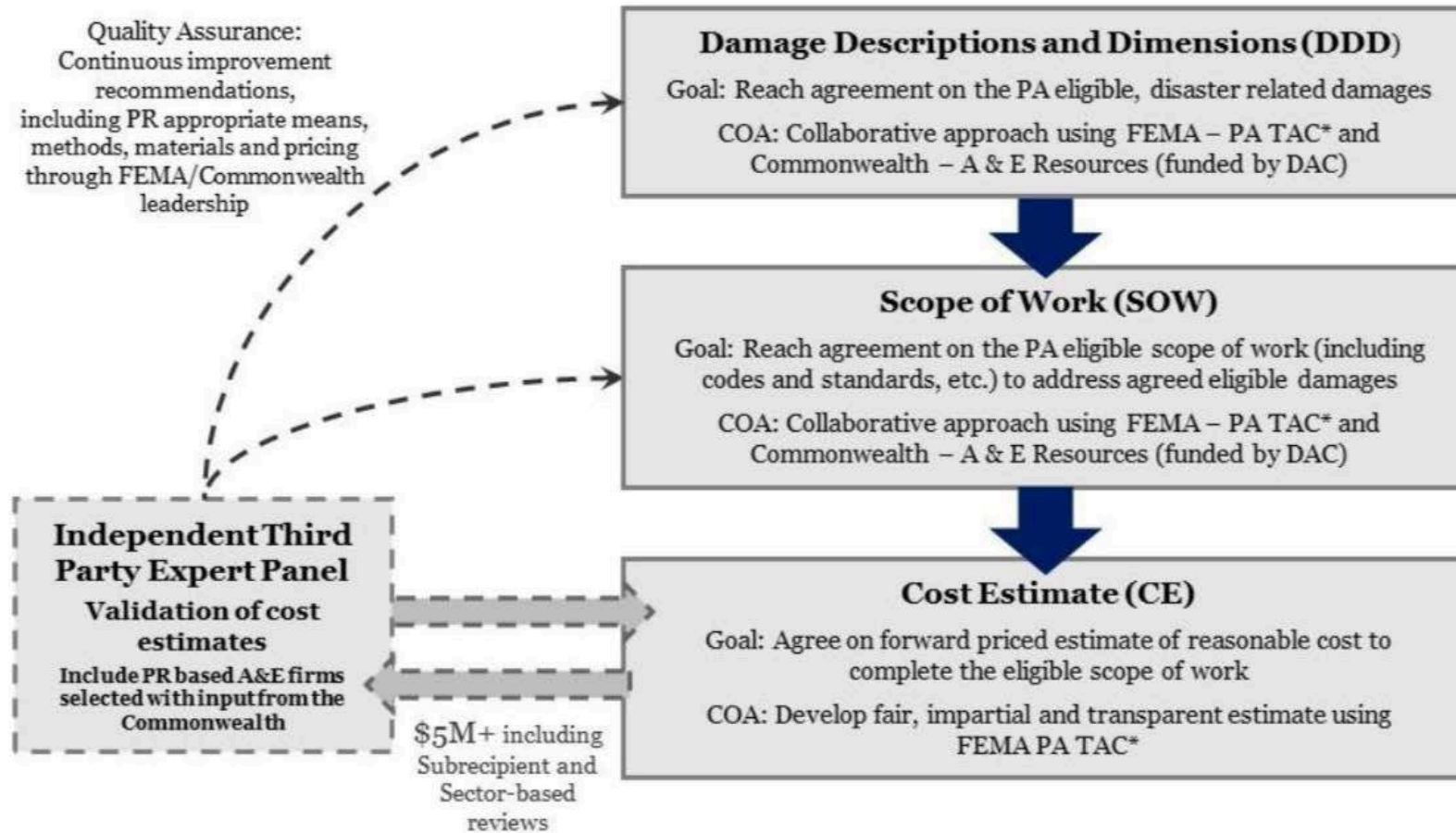
- Need to Triple of Offering from 15,100 Rooms
- \$1.9bn Hospitality Development Pipeline
 - Aloft San Juan
 - Aloft Ponce
 - Four Seasons Cayo Largo
 - JW Marriott
 - Among Others
- 25% Increase in Hotel Rooms
- Pipeline would Create 4,000 New Jobs

Stafford Act Section 428

- Alternative Procedures for PA
 - 42 USC 5189f
- 44 CFR 206
- FEMA 4339-DR-PR Public Assistance Alternative Procedures (Section 428) Guide for Permanent Work
- LS Compensation Based on FCE
- Mitigation (Sec 406)
- Codes & Standards
- BBA



Project Formulation Process



Who's Eligible Under CDBG-DR?

CDBG-DR Program Income Limits for All Areas in Puerto Rico								
2018 Adjusted Income Limits	1-Person	2-Person	3-Person	4-Person	5-Person	6-Person	7-Person	8-Person
Extremely Low Income	\$10,600	\$12,100	\$13,600	\$15,100	\$16,350	\$17,550	\$18,750	\$19,950
Low Income	\$17,600	\$20,100	\$22,600	\$25,100	\$27,150	\$29,150	\$31,150	\$33,150
Moderate Income	\$28,150	\$32,200	\$36,200	\$40,200	\$43,450	\$46,650	\$49,850	\$53,100
Median Income	\$35,150	\$40,200	\$45,200	\$50,200	\$54,250	\$58,250	\$62,250	\$66,300
120% Income	\$42,200	\$48,200	\$54,250	\$60,250	\$65,100	\$69,900	\$74,750	\$79,550

Note: The rounded 4-person income limit is adjusted for person sizes and then rounded up \$50.

<https://www.hudexchange.info/resources/documents/2018-Puerto-Rico-Income-Limits.pdf>



HUD Section 3

- Help foster:
 - Economic Development
 - Neighborhood Improvement
 - Individual Self-Sufficiency
- Eligibility
 - Low and Very Low Income Families
- Section 3 Business Concern
 - 51% Ownership by Section 3 Residents
 - 30% of Permanent Staff are Section 3 Residents
- Opportunities
 - Job Training
 - Employment
 - Contracts
- Yearly Reports (HUD Form 60002)
- 25% Subcontracting

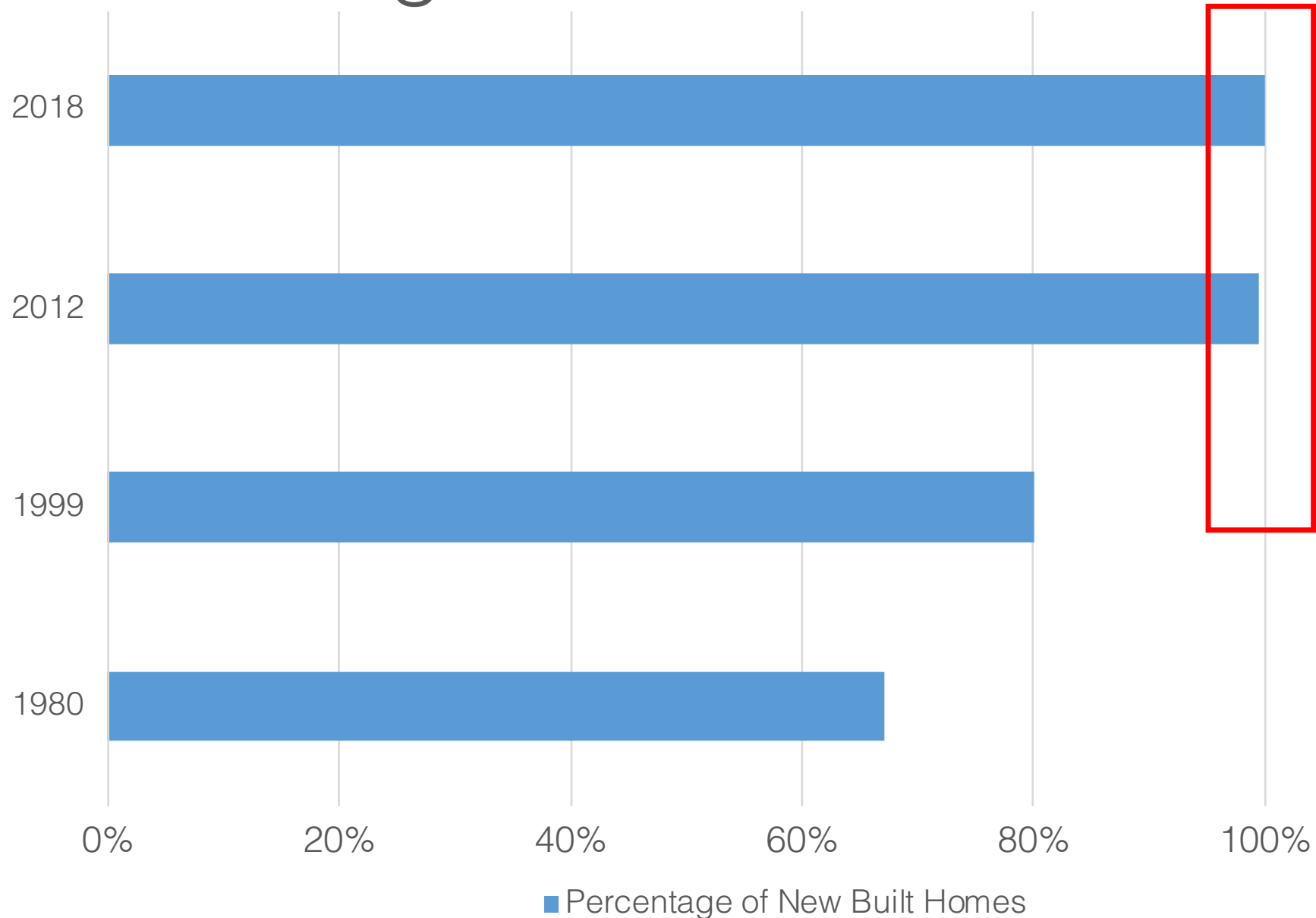


PRBC 2018

(CDBG-DR + FEMA Projects)

- Adopted in November 15 2018
 - IBC
 - IRC
 - IMC
 - IPC
 - IFC
 - IFGC
 - IECC
 - IEBC
 - IPSDC
 - ISPSC
- Administrative
 - Registered Design Professional in Charge

Percentage of Homes Built



Only about 0.5% homes built from March 2012 to Dec 2017 (less than 6,400 units!!)

98% of formally built homes sustained little to no damage



Building Code Considerations

PRBC 2018 Adopted in November 2018

- Exemption of Automatic Fire Sprinklers
- 1 Exit for R-2 Occupancies
- Tropical Considerations for Residential Buildings
- ASHRAE 90.1 for Non-Residential

Lateral Loads

- ASCE 7-2016
 - Increased Wind Speeds (160-180mph)
 - Load Combination Factors Decreased
 - Components & Claddings
- Micro Zoning
 - Developed for Puerto Rico
 - Web Based Maps
 - Accounts for Elevation, Topographic, Importance Risks
- Earthquake Loads
 - 0% to 30% Increase
- Tsunami Loads
 - As per ASCE 7-2016
 - No maps for PR included





Existing Homes' Requirements

PRBC 2018 Adopted in November 2018

- Risks Certified by Engineer
- Roof Insulation
- Solar Water Heater
- Renewable Energy Facilities

Green Building

- **Green Building Retrofit Checklist & Guidance**
(<https://www.hudexchange.info/resources/documents/CPD-Green-Building-Retrofit-Checklist.xls>)



Meet the Green Building Standard (CDBG-DR)

- Certification Required – New Construction
 - Accredited Standards or
 - Equivalent Acceptable to HUD
- Ongoing Projects
 - Apply standards to extent feasible

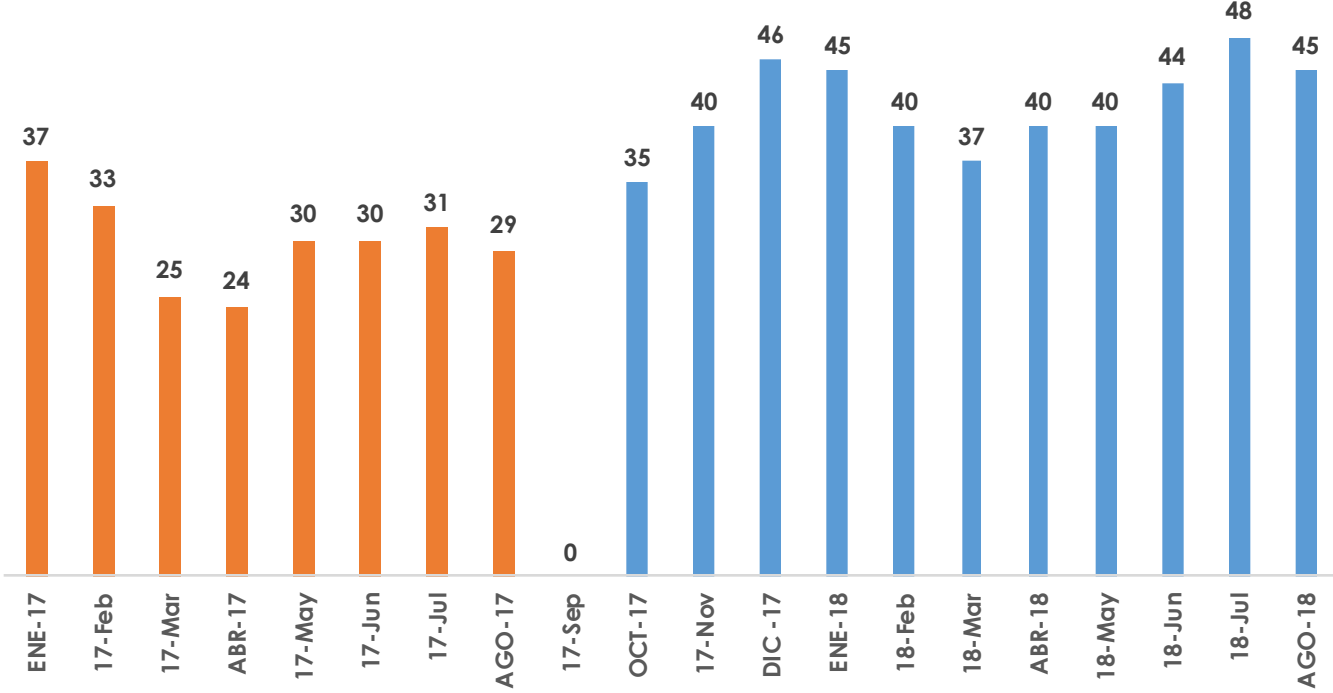
Flood Zone

- No reconstruction in floodplain (Action Plan)
- Complying with Planning Regulation 13 should suffice.





Construction Workforce in PR

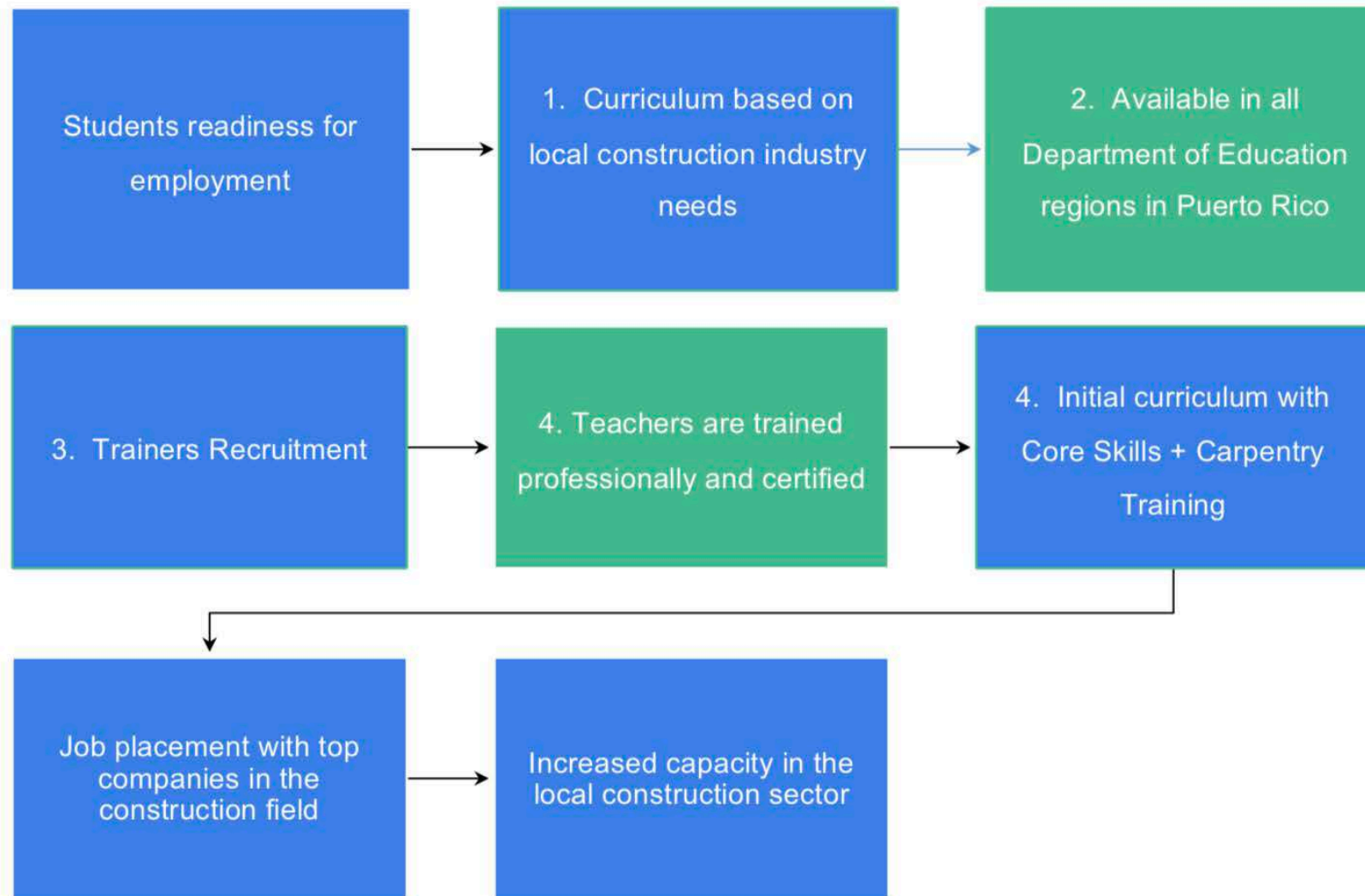


Industry Workforce Development Initiatives

- Vision
 - Adequate training & certification of needed workforce through an industry delivered solution.
- Guiding Principles
 - Train & Certify
 - Code Compliance
 - Safety
 - Trades Needed by Industry
- Actions
 - Deployment Through Public Schools System



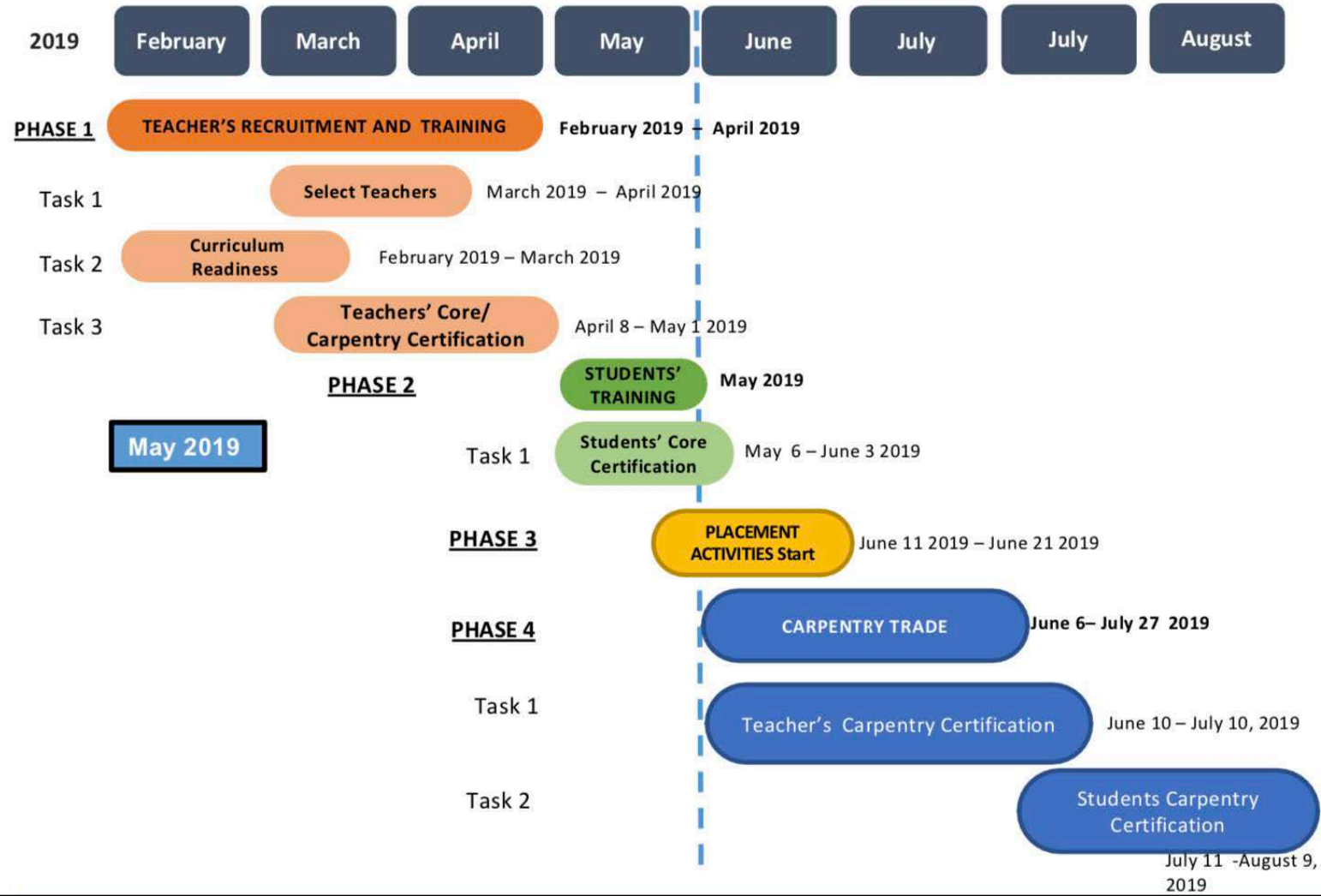
2019 PROGRAM OBJECTIVES







Revised Timeline



A large-scale construction project is underway at a waterfront. A concrete pump truck with a long, articulated boom is positioned on the left, pouring concrete into a structure. Several construction workers wearing hard hats and safety vests are visible on the site. In the background, a tall building under construction and a body of water with a crane on a barge are visible under a blue sky with scattered clouds.

Students Get...

- High School Diploma
- Nationally Recognized Construction Training Certification
- OSHA 10hr Construction Certification
- Compliant Course with EO 2018-033



- Industry-Wide / Academia Partnering
- Partner with Public Sector
- Train & Certify
- Delivery Method
- Phased Approach
- Benefits
 - Focus on Worker
 - Nationally Recognized
 - Attend Industry Needs

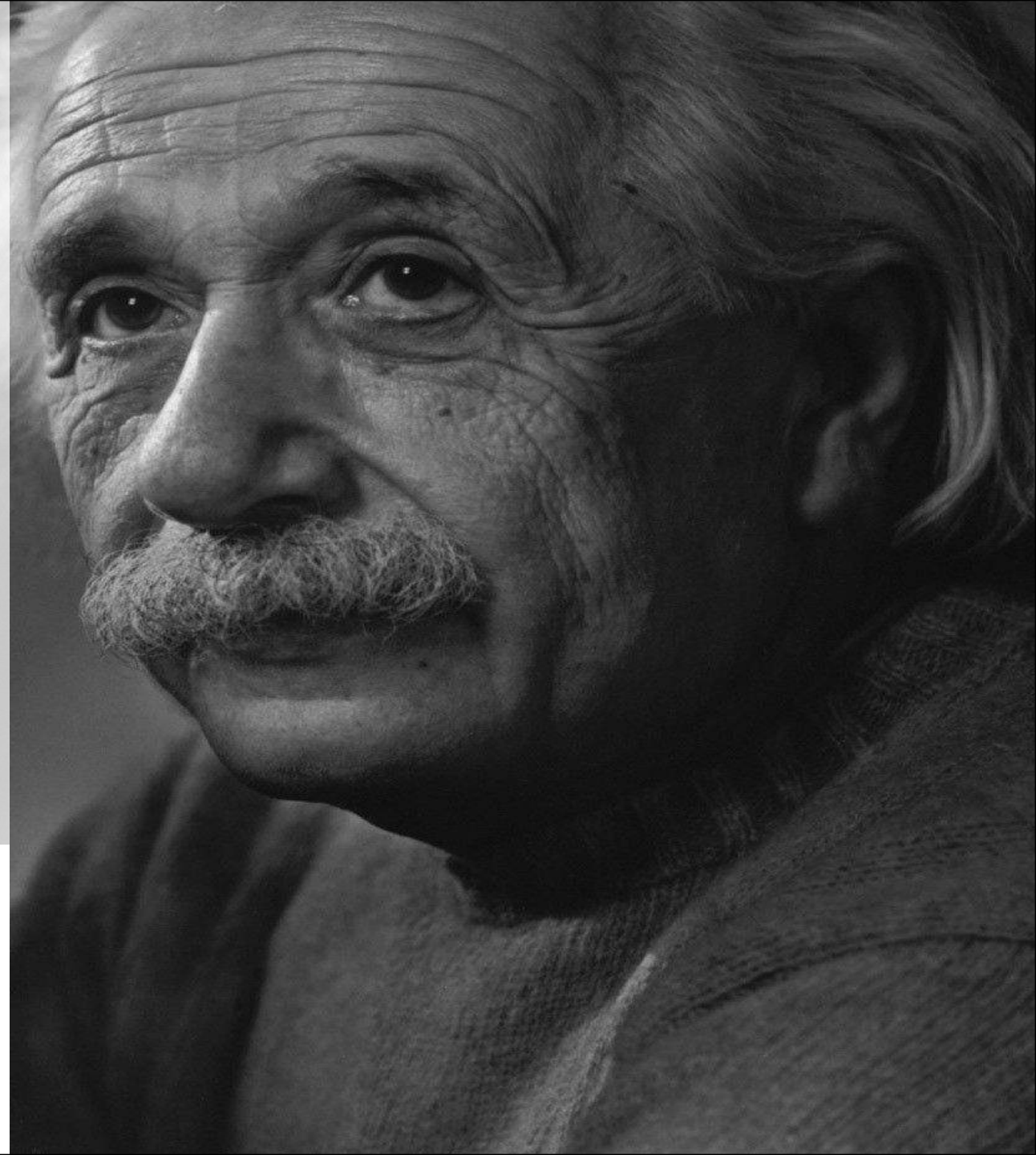
Industry Professionalization

“WE CANNOT SOLVE
OUR PROBLEMS
WITH THE SAME
THINKING WE USED
WHEN WE CREATED
THEM.”

- Albert Einstein-



ASOCIACIÓN DE
CONSTRUCTORES
DE PUERTO RICO





Thank you!



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