

# Demographics and Workforce Challenges

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# Today

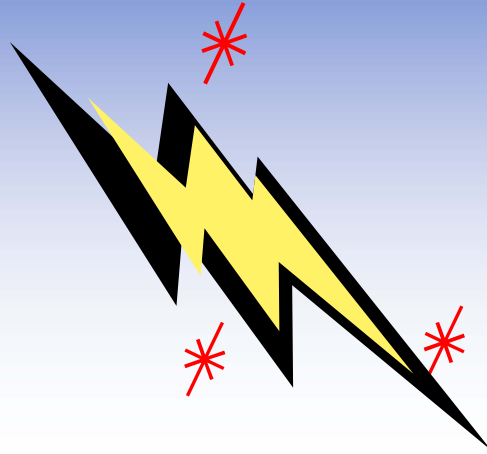
- Industry Needs
- Demographics
- Education
- Apprenticeship
- Workforce Development
- Millennial Generation

# Future Workforce Needs

- CLRC: 185,000 new workers per year for each of the next 10 years
- CURT: 250,000\* new workers per year for each of the next 10 years

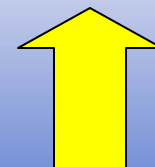
\*excludes impact of Hurricanes Katrina, Rita, & Ike

If Only -



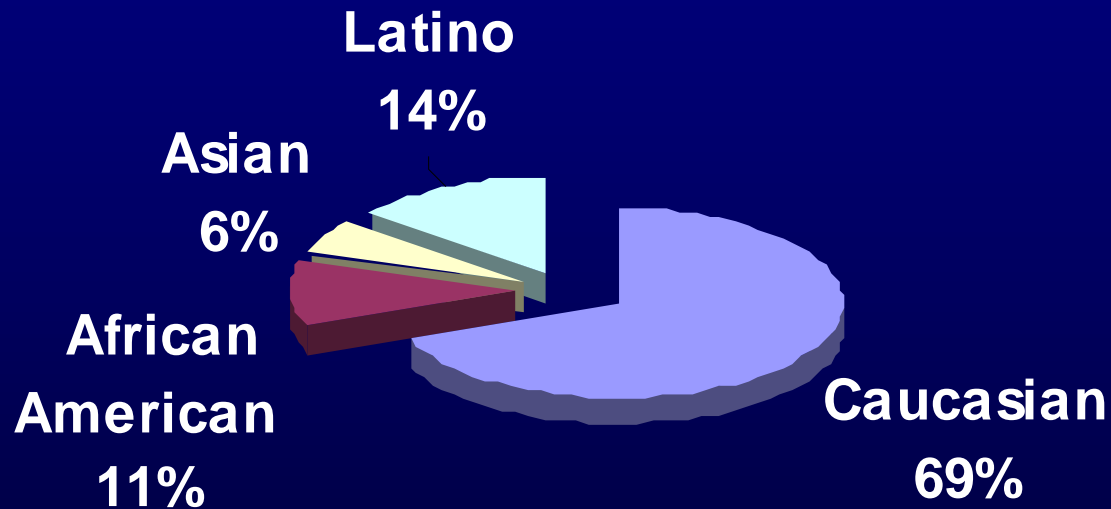
# Future Workforce Supply Issues

- US birth rate at 13.9/1000 people is the lowest since records have been kept
- Ratio of males to females – 1.06/1 is dropping as fewer males are being born
- Male participation rate
- Female participation rate



# Workforce Ethnic Breakdown

## Workforce By Ethnic Heritage - 2020



**This workforce is already born!**

# Education Intentions

- To get a good job, you must go to college
- “You earn what you learn”
- White collar jobs → Employment & income stability
- 62% of graduating high school students attended college this year

# US Dept. of Labor Job Requirements

Requirements	Percentage
Short- or moderate term OJT	54
Related work experience or long-term OJT	15
Associate's degree or postsecondary vocational award	8
Bachelor's degree or bachelor's + work experience	20
Master's , doctoral or first professional degree	3



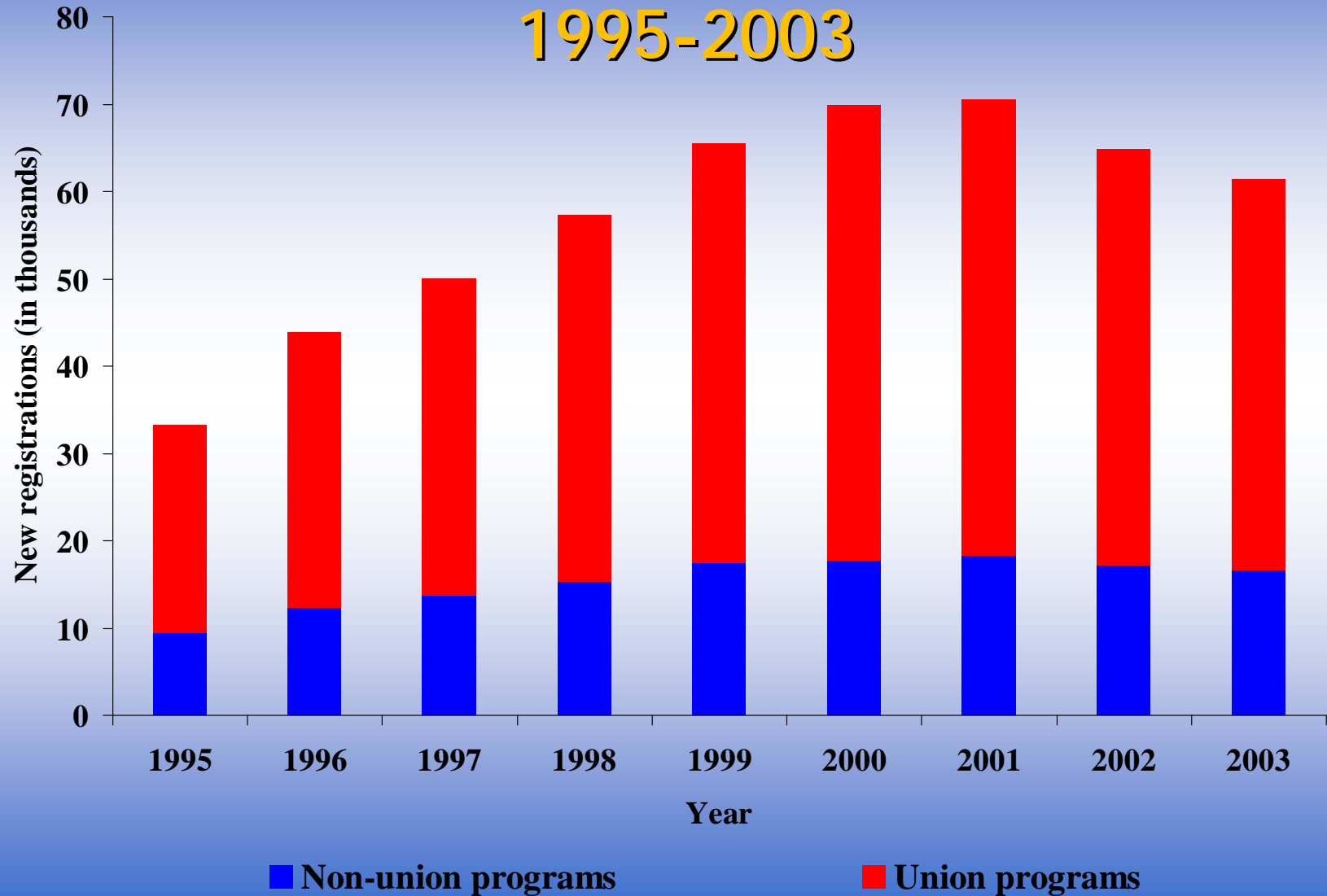
Race	High School Graduation Rate (%)		
	Total	Gender	
		Female	Male
Caucasian	78	79	74
Hispanic	53	58	49
African American	55	59	48
Asian	72	73	70
<b>Total</b>	<b>70</b>	<b>72</b>	<b>65</b>

Subject	Percentage of High School Graduates Completing Subject						
	Total	Gender		Race			
		Male	Female	Caucasian	African American	Latino	Asian
Algebra I	62.8	62.0	63.8	63.5	62.3	61.4	56.8
Geometry	75.1	73.7	77.3	77.7	72.6	62.3	79.9
Algebra II	61.7	59.8	63.7	64.6	55.6	48.3	70.1
Trig.	8.9	8.2	9.7	10.0	4.8	6.6	11.7
Biology	92.7	91.4	94.1	93.7	92.8	86.5	92.9
Chemistry	60.4	60.4	63.5	63.2	54.6	46.1	72.4
Physics	28.5	31.7	26.2	30.7	21.4	18.9	46.4

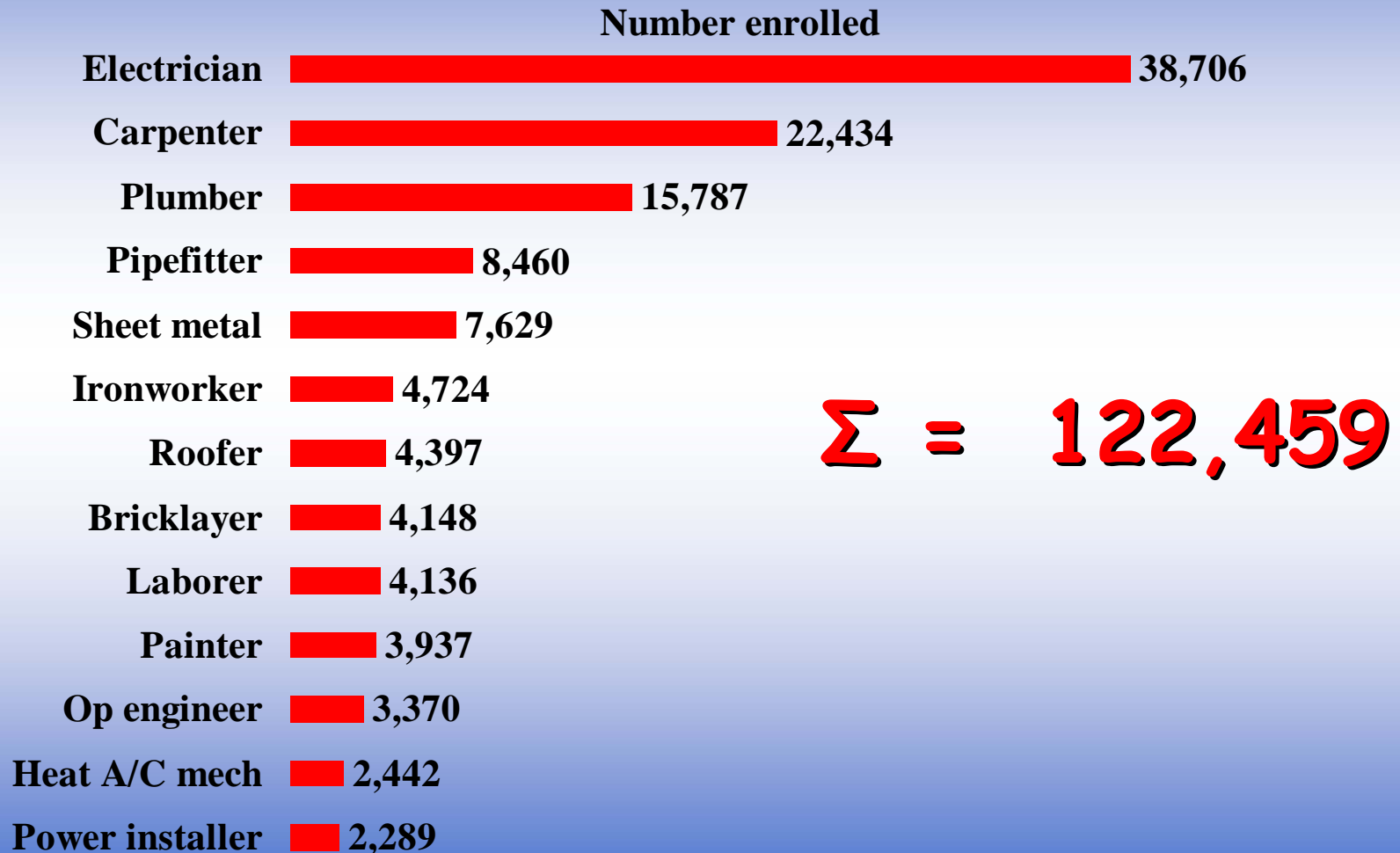
Race	Post-secondary Participaiton Rates(%)	
	Gender	
	Female	Male
Caucasian	57	49
African American	43	34
Hispanic	34	21

Race	College Graduation Rates – 4 Year (%)	
	Gender	
	Female	Male
Caucasian	57.5	51.3
African American	41.6	37.3
Hispanic	44.8	35.7
Asian	65.3	56.9

# New registrations in apprenticeship programs union vs. non-union programs, 1995-2003



# Number of active apprentices in 13 construction occupations, 2005



# Apprenticeship Completion Rates

- Joint Plans 42.8%
- All Plans 36.8%
- Non-joint Plans 29.5%

# Jobs Rated Almanac

## Ratings Of Construction Jobs

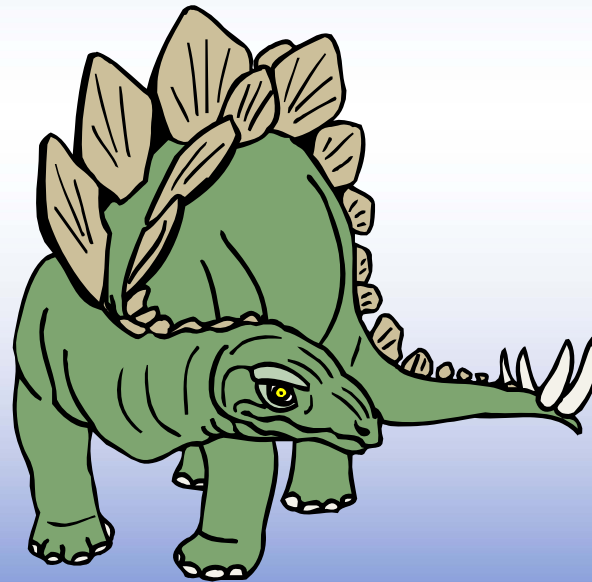
- Surveyor – 173
- Foreman – 182
- Carpet Installer – 205
- Painter – 215
- Glazier – 216
- Drywall Finisher – 220
- Plasterer - 222
- Eqpt Operator – 224
- Plasterer – 222
- Bricklayer – 225
- *Sheet Metal Worker – 227*
- Carpenter – 228
- Roofer – 242
- Laborer – 244
- Ironworker - 247

**Out of 250**



# What do we do?

- Adapt or



# Workforce Development Process

**Awareness**

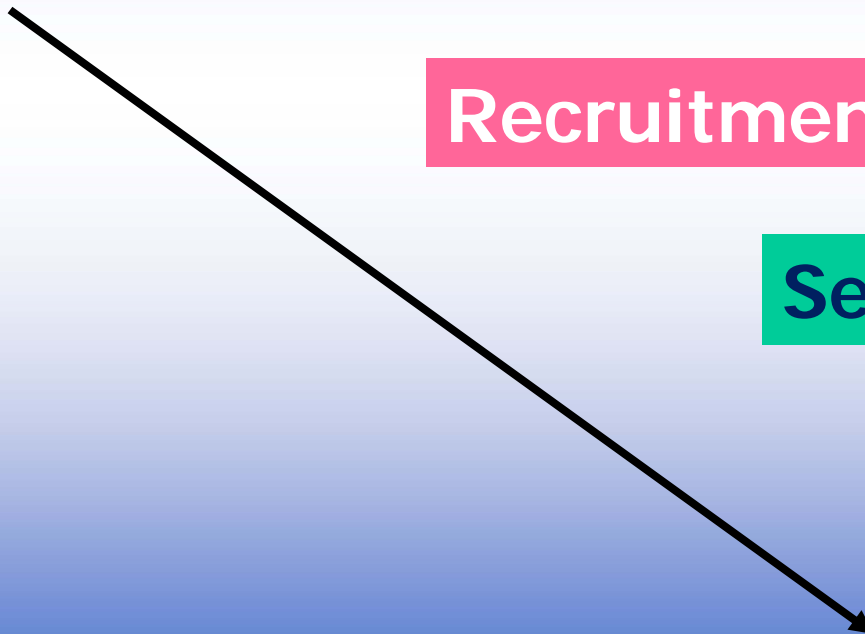
**Familiarization**

**Recruitment**

**Selection**

**Training**

**Retention**



# Workforce Development

- As ye sow, so shall ye reap!
- Long-term process
  - Cultivation of potential workers
  - Requires a commitment of time and money
- Requires both contractor and labor involvement

# Industry Characteristics -

- Fragmented
- Short-sighted

***We must develop an integrated approach to workforce development!***

# Problem

- Over 50% of construction workers questioned do not want their children to go into the construction industry

# Awareness & Familiarization

- What is the image of construction in the media?
- Bob the Builder
- Boy Scouts have 16 merit badges directly related to construction
- Explorer posts based on building trades
- School programs

# Recruitment

- Much too fragmented
- Done by local union's training director
- Little or no coordination between unions
- Need a BCTC effort
- Retired military recruiter
- Develop materials for the industry and the crafts

# Recruitment cont.

- Know your target population
  - Millennial Generation
- Make use of today's technology - Internet



# Apprenticeship - Criticisms

- Takes too long
  - Why can we train an electrical engineer in 4 years, but it takes 5 years to train an electrician?
- Costs too much
  - Belief that each local must do its own training
  - Fragmentation causes duplication
  - Few partnerships with outside organizations

# Apprenticeship - Criticisms

- Do today's apprenticeship programs reflect the realities of today's work?
  - Broadly trained carpenter vs. a person who can build forms, place reinforcement, and place concrete
- Time-based vs. proficiency-based
- Training to build a Cadillac when the client wants a Chevrolet

# Apprenticeship Recommendation

- Goal: provide the apprentice with the skills necessary to perform the job

# Training

- Cultural awareness and sensitivity training
  - “We’ve gone from the old world to the third world!”

# Millennial Generation

- Anecdotal reports

**The Millennial generation does not want to work!**

# Millennial Generation

- People and the world of work have changed
- Most educated and technologically advanced group in history
- Do not believe in “paying their dues”
- Merit is sole determinant of job duties
- Believe they are equals - no hazing
- Capability more important than age

## Millennial Generation cont.

- Never been taught the meaning of **NO**
- Must learn behavior has consequences
- Menu-driven
- Must be entertained
- Instant communication
- Very short attention span
- Many have never worked in a structured work environment

# Multidimensional Work Ethic Profile

Multi-dimensional Work Ethic Profile Factor Scales			
Scale	Millennial- Gen X	Millennial – Baby Boomer	Gen X – Baby Boomer
Self-reliance	Blue	Red	Blue
Morality & Ethics	Red	Red	Red
Leisure	Blue	Red	Red
Hard work	Red	Red	Red
Centrality of Work	Blue	Blue	Blue
Wasted Time	Grey	Grey	Red
Delay of Gratification	Red	Red	Blue
MWEP Scale	Grey	Grey	Grey



# Keys to Working with the Millennial Generation

- Establish a well-defined and very specific set of work rules and the consequences of failing to comply with them.
- Develop good interpersonal relations
- Make effective job assignments
- Provide feedback and rewards
- Develop basic job skills and understanding

# Any Questions?

