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Uncertain Futures?

Youth Attachment to the Labor Market in the United States and New England

U.S. Department of Labor,
Region 1 State Labor Commissioners Meeting
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New England Public Policy Center
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In the wake of the Great Recession, high unemployment and low labor force participation among youth are of concern.

- "Idle Youth Raises "Lost Generation" Fear." *CBS News*, 11/27/09
- "The harm today's youth unemployment is doing will be felt for decades, both by those affected and by society at large." *The Economist*, 9/10/11
- "Why the U.S. Has a Worse Youth Unemployment Problem than Europe." Peter Gumbel, *Time*, 11/5/12.
- "The Idled Young Americans." David Leonhardt, *New York Times*, 5/3/13.
- "America's Youth Unemployment Problem Could Cost $18 Billion Over the Next Decade." *The Huffington Post*, 5/20/13
- "Dire Youth Unemployment Growing Worse." *Fox Business News*, 5/10/13.

What are the overall objectives of this research?

- Overall Goal: Promote and/or support better policy outcomes
- Interim Goals:
  - Produce a Foundational Paper: Contribute to the current policy debate by putting current trends into perspective and providing a regional focus.
  - Conduct Policy-Driven Research: Examine in detail the root causes of and possible solutions for youth labor force detachment.
  - Engage in Policy Development: Offer technical expertise or advice to ongoing policy activities throughout the region. Work with partners engaged in the field to advance policy recommendations.

What factors might be driving the recent decline in labor market attachment among youth?

- Recent studies have argued that the youth labor market has undergone structural changes in recent decades (Sum, Gillis, Khatiwada, and Palma, 2013).
  - Demand: Labor demand has shifted away from routine work and towards jobs that require technical skills or post-secondary training (Autor, Levy, and Murnane 2003; Acemoglu and Autor 2010).
  - Supply: Alternative sources of labor such as adult middle-skill workers or immigrants (Smith, 2011 and 2012) may be filling jobs traditionally held by youth.
- These structural changes may have been exacerbated by cyclical forces stemming from the Great Recession.
  - Structural factors represent a permanent realignment of employment across industries, such that displaced workers must update or gain new skills sets in order to become re-employed.
  - Cyclical factors typically encompass temporary and reversible changes in employment due to decreases in aggregate demand.

What are the Research Questions?

- To what extent has youth labor market attachment changed in recent decades, including changes in the share of youth that are idle/NEET?
- Are the recent changes in labor market attachment being driven by a particular demographic group, or are the changes more widespread across all youth?
- What impact have structural shifts in the economy across industries and occupations had on the youth labor market before the Great Recession?
- What role did the Great Recession play in reinforcing the long-term decline in youth labor market attachment?

What Contributions Does This Paper Make to the Existing Literature?

- Examine trends separately for two groups of youth that possess varying labor market and educational characteristics: individuals aged 16 to 19 years ("teens") versus 20 to 24 year olds ("young adults").
- Explore trends across gender, racial and ethnic groups—focusing on both levels and changes in labor market attachment over the past several decades.
- Assess trends in youth employment by occupation and industry in the period just prior to the Great Recession (2000 to 2006) separately from the cyclical impacts of the most recent downturn.
- Measure labor market attachment at points in time in the cross-sectional data as well as over the working lives of successive cohorts of youth.

What Data are Used in the Analysis?

- Examine annual trends in attachment for all youth combined
  - March Current Population Survey (CPS), 1976–2012
- Quantify discrete changes in attachment for demographic groups
  - 1980, 1990 and 2000 Decennial Census 5% Sample
  - American Community Survey (ACS)
    - 2005–2007 and 2009–2011 3-Year PUMS
- Measure shifts for top teen industries during the Great Recession
  - Bureau of Labor Statistics (BLS) Current Employment Statistics (CES), December 2007– April 2013

Putting Recent Trends in Perspective: To What Degree Has Youth Labor Market Attachment Changed in Recent Decades?

Hypothesis: American youth have become increasingly idle over time.

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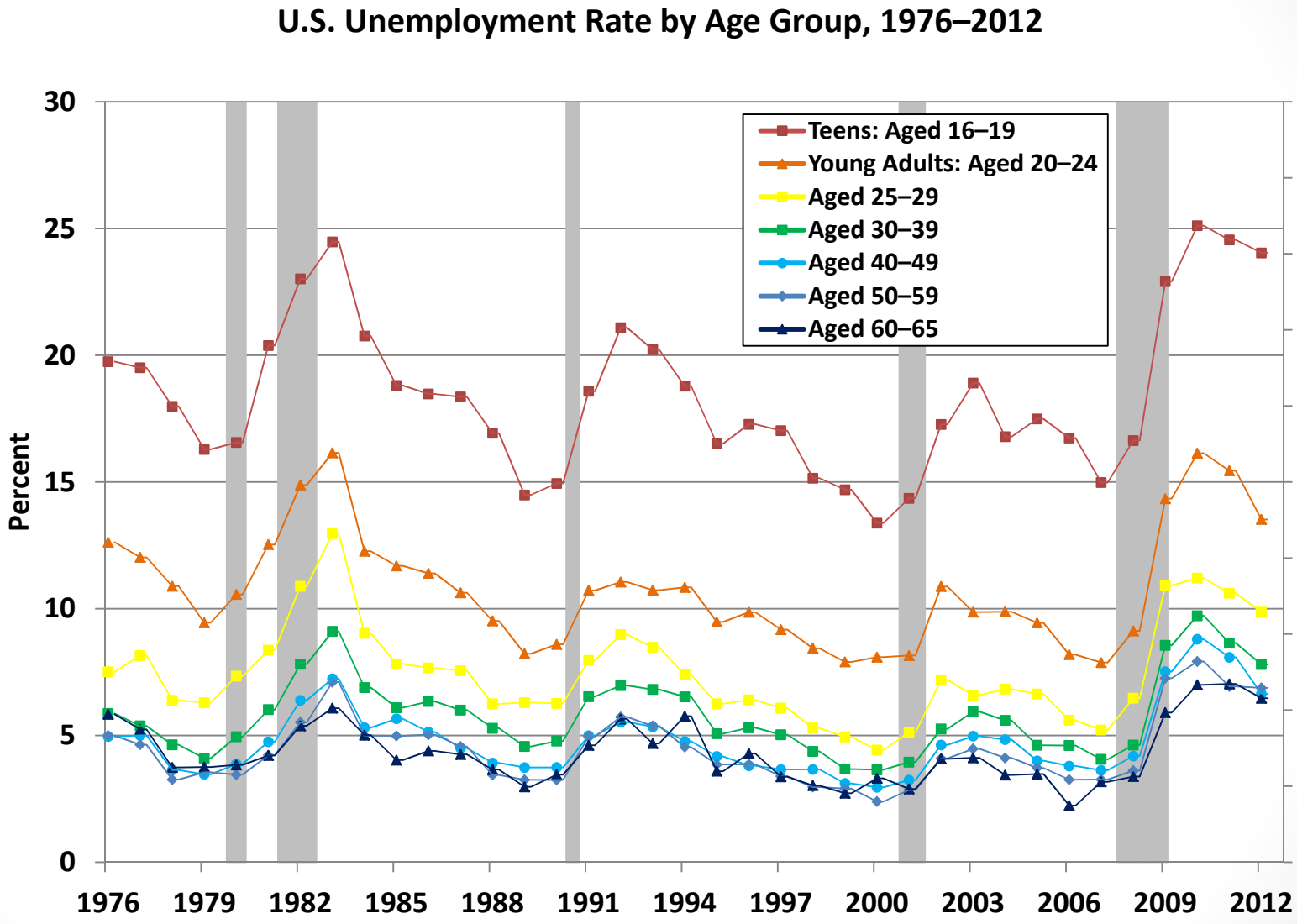
Findings:

- It is true that youth labor force attachment was **declining prior to the Great Recession**, but mostly for teens.
- Yet **school enrollment** also increased.
- As a result, the share of youth that is **idle has changed little** over time.

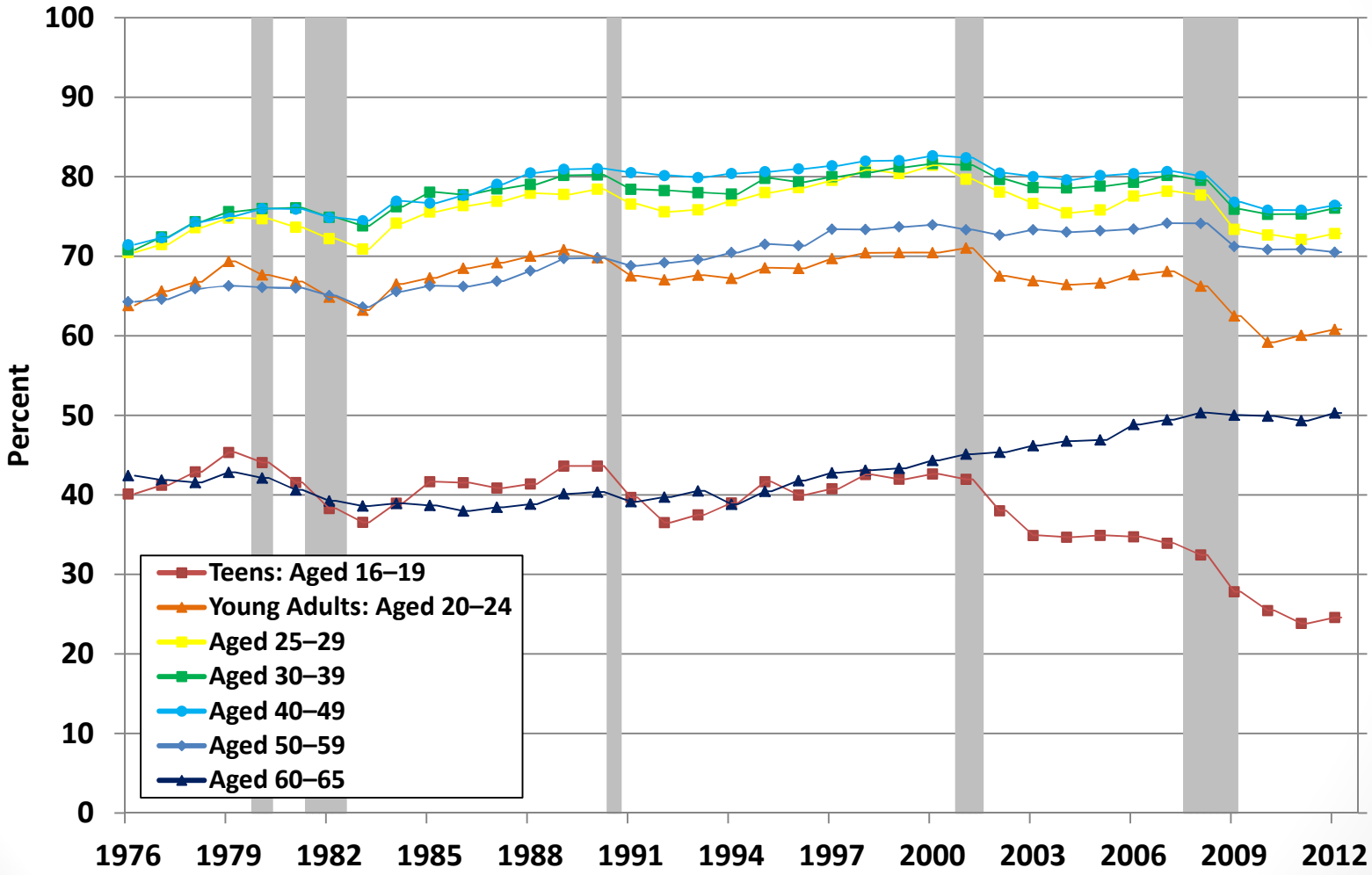
Unemployment Is Typically Higher for Youth Workers– Particularly during Recessions– in Part Due to Fewer Years of Experience and Shorter Tenure.



Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1976-2012.

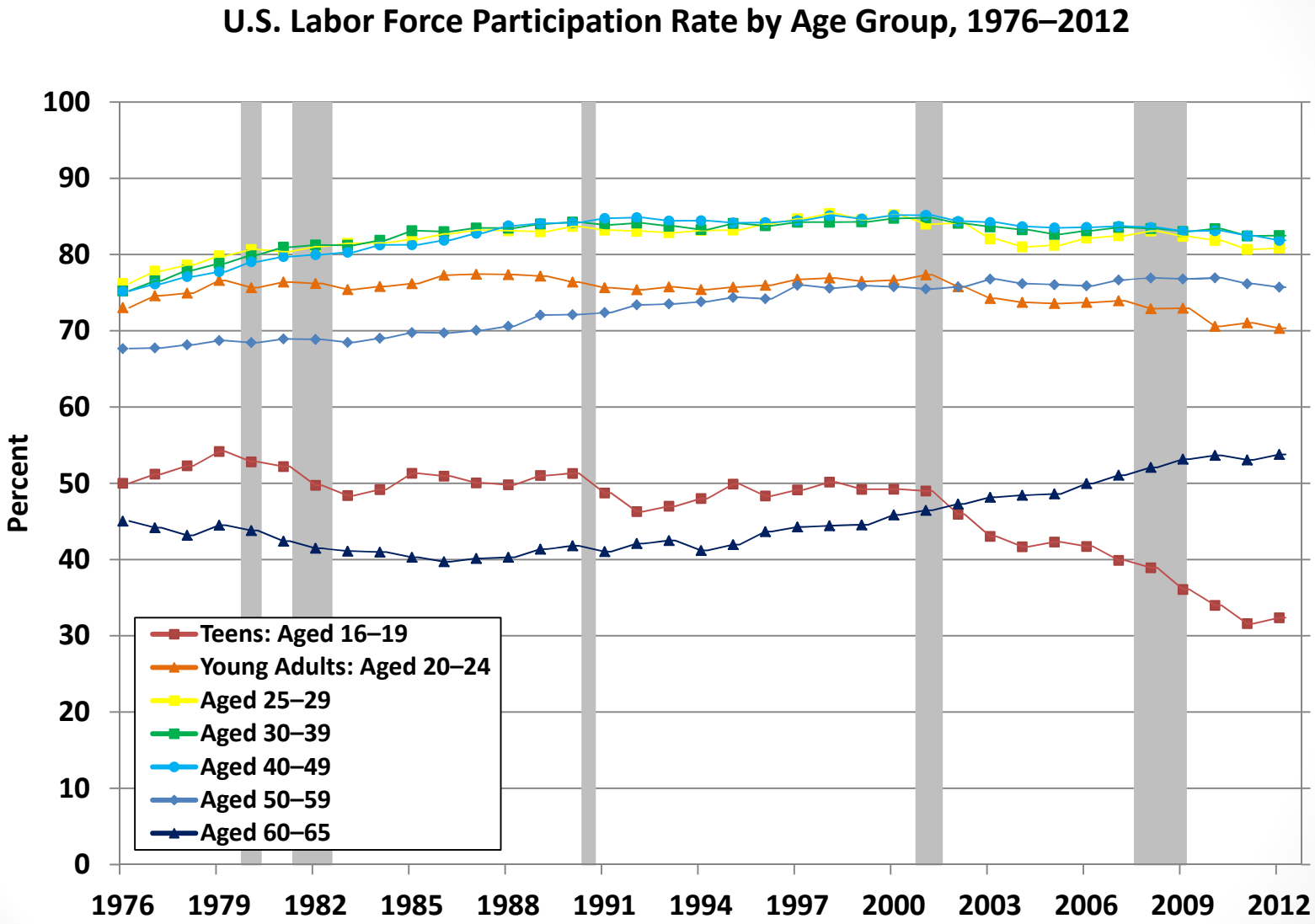
During the 2001 Recession, the Employment-to-Population Ratio Fell Sharply for Youth, Failing to Rebound to Its Earlier Cyclical Peak.

U.S. Employment-to-Population Ratio by Age Group, 1976–2012



Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1976-2012.

Labor Force Participation Fell Sharply for Teens Prior to the Great Recession, but Was Fairly Steady for Young Adults during That Period.



Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1976-2012.

Labor Market Attachment Fell Sharply for 16–19 Year Olds Even Prior to the Great Recession, but Was Fairly Steady for 20–24 Year Olds during That Period.

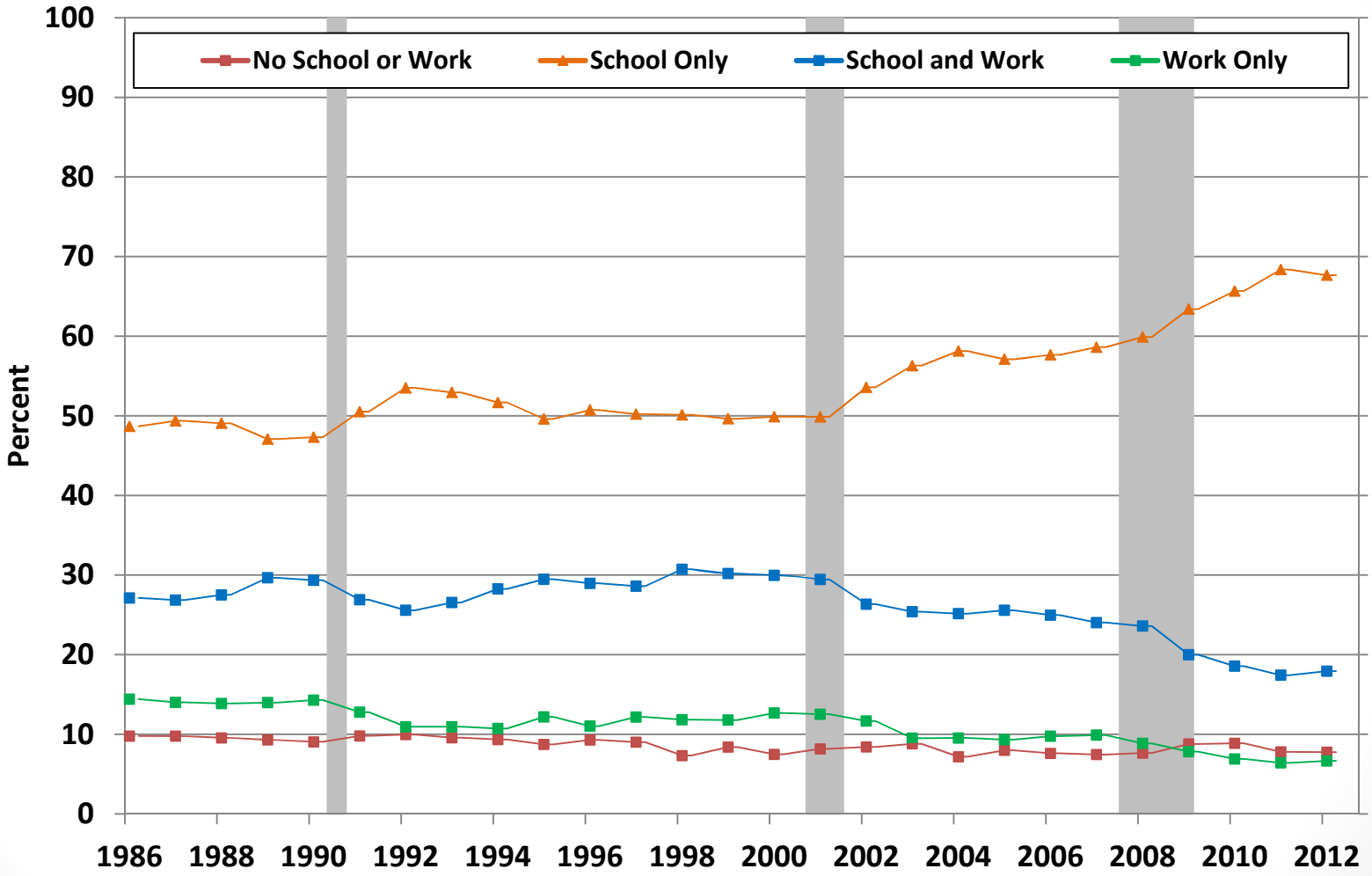
Changes in U.S. Youth Labor Market Attachment and School Enrollment

	2000	2006	2010	Percentage Point Difference	
				2000-2006	2006-2010
Employment-to-Population Ratio					
Teens: Aged 16-19 Years	41.2	35.4	27.5	-5.8	-7.9
Young Adults: Aged 20-24 Years	67.2	66.7	61.8	-0.5	-5.0
Labor Force Participation Rate					
Teens: Aged 16-19 Years	50.5	45.1	38.4	-5.4	-6.7
Young Adults: Aged 20-24 Years	74.9	75.2	73.8	0.3	-1.4
Unemployment Rate					
Teens: Aged 16-19 Years	18.4	21.4	28.4	3.0	7.0
Young Adults: Aged 20-24 Years	10.3	11.3	16.3	1.0	5.0
Share Enrolled in School					
Teens: Aged 16-19 Years	79.7	83.5	84.6	3.8	1.1
Young Adults: Aged 20-24 Years	35.5	40.0	42.3	4.5	2.4

Source: Authors' analysis of 2000 Decennial Census and ACS 3-year (2005-2007; 2009-2011) Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 and 2010 are derived from the 2005-2007 and 2009-2011 ACS 3-year PUMS respectively.

Over Time, Teens Have Shifted Away from Combining Work And Schooling Towards Attending School Exclusively, but Idleness Has Not Increased.

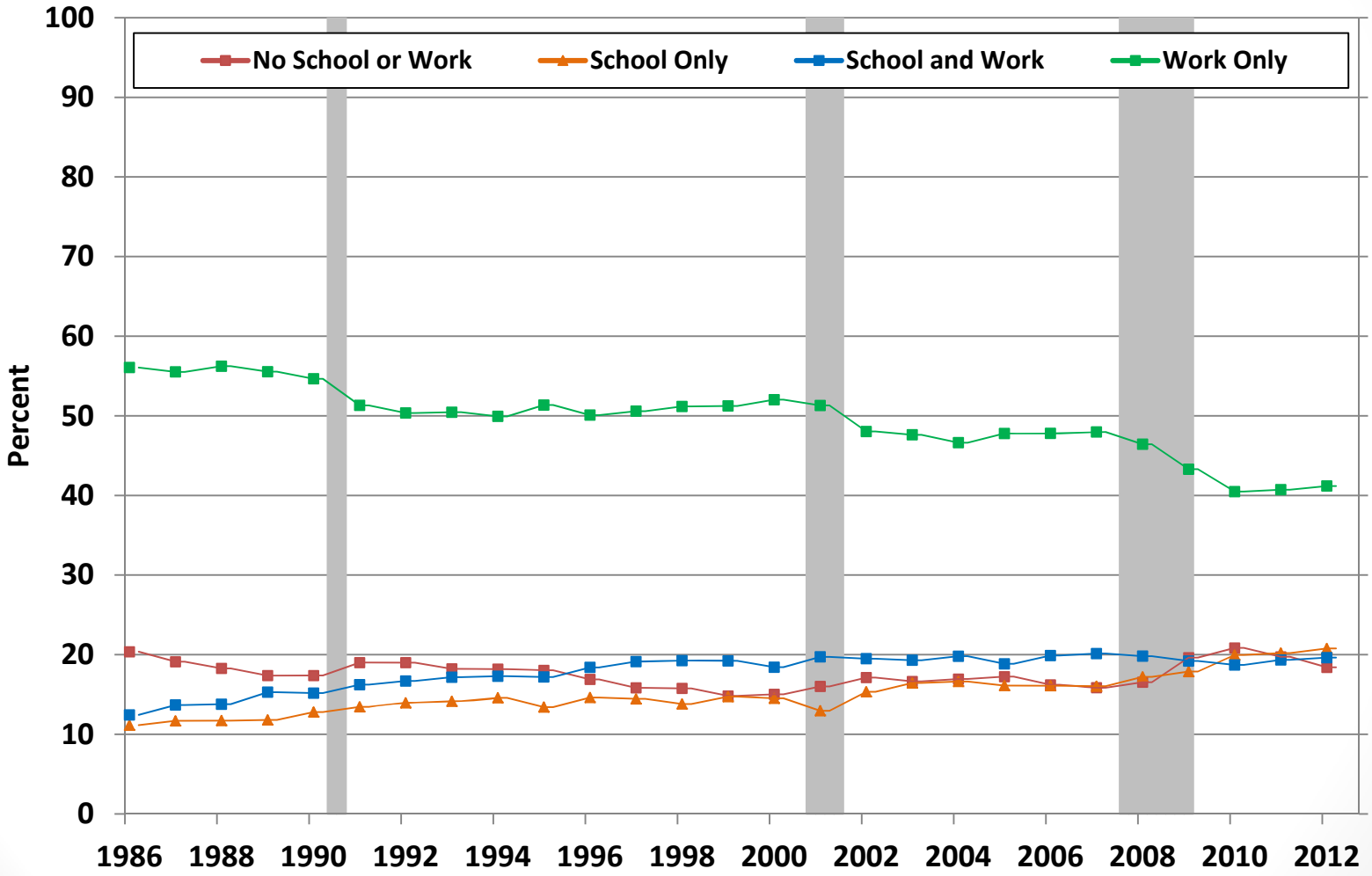
Trends among U.S. Teens Regarding Work, School, and Idleness, 1976–2012



Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1986-2012.

Although Young Adults Have Shifted Away From Working Exclusively And Towards Attending School, There Is No Upward Trend in Idleness for This Group.

Trends among U.S. Young Adults Regarding Work, School, and Idleness, 1976–2012



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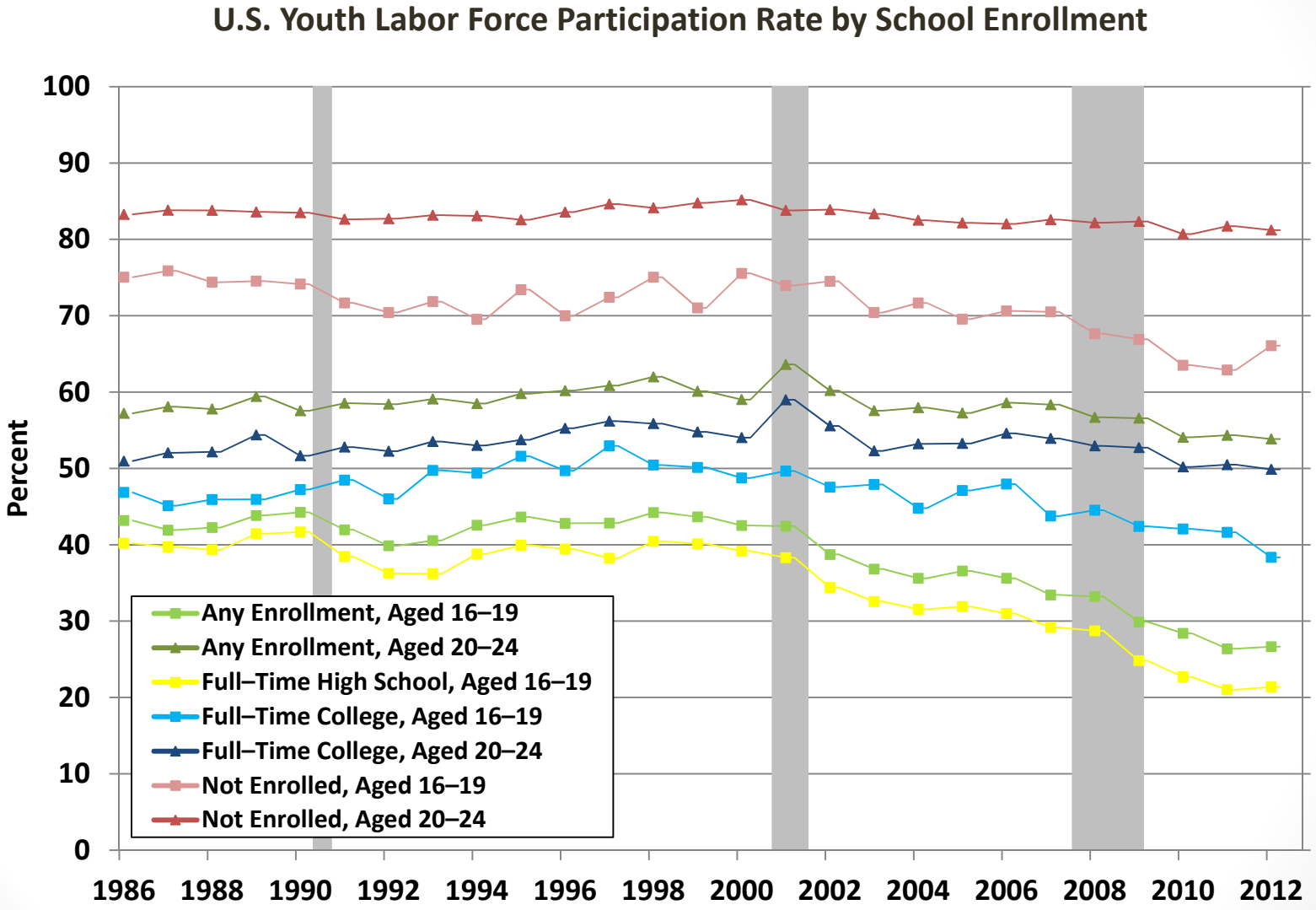
Share Not Enrolled in School , Not Working					
Teens: Aged 16-19 Years	9.0	7.9	8.7	-1.0	0.7
Young Adults: Aged 20-24 Years	18.7	17.2	19.4	-1.5	2.2

Source: Authors' analysis of 2000 Decennial Census and ACS 3-year (2005-2007; 2009-2011) Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 and 2010 are derived from the 2005-2007 and 2009-2011 ACS 3-year PUMS respectively.

Labor Force Participation among Youth Has Decreased **Regardless of School Enrollment**, Although More So for Those in School.



Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1986-2012.

An Increasing Share of Youth Are Choosing to Attend School Rather Than Work. Yet the Share Reporting Difficulty Entering the Labor Market Is Also Rising—Even Prior to the Great Recession.

Changes in the Reasons for Labor Market Detachment among U.S. Youth

	Teens: Aged 16-19 Years			Young Adults: Aged 20-24 Years		
	2000	2006	2012	2000	2006	2012
Share Not in the Labor Force						
Wants a job	12.6	10.8	9.5	15.4	13.1	13.7
Does not Want a job	87.4	89.2	90.5	84.6	86.9	86.3
Reasons for Not Working Last Year						
Going to school	87.7	89.2	89.0	49.9	53.7	57.9
Could not find work	2.0	2.1	3.6	7.6	6.4	12.4
Taking care of home/family	5.4	4.6	3.2	26.8	25.3	16.9
Ill or disabled	2.0	2.0	2.2	7.2	7.9	7.8
Other	2.9	2.1	1.9	8.5	6.7	5.1
Reasons for Unemployment						
Entering Labor Force	22.3	36.8	54.8	5.6	7.6	16.2
Re-entering Labor Force	52.3	44.4	27.9	37.8	41.0	38.6
Job Loss	16.2	12.2	13.7	39.3	36.7	35.3
Left Job	9.3	6.6	3.7	17.3	14.7	9.8

Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 2000, 2006, and 2012.

Diagnosing the Problem: To What Degree Has Youth Labor Market Attachment Changed for Different Groups?

Hypothesis: Falling youth labor force participation is due to an increasing share of minorities who typically have lower levels of labor market attachment.

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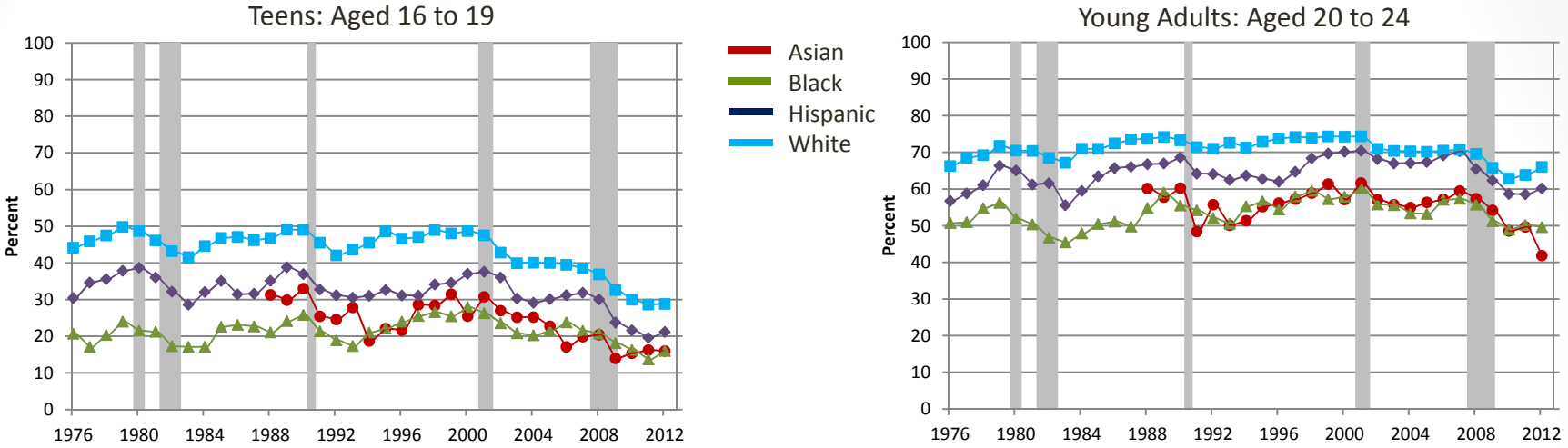
Findings:

- It is true that minorities have lower levels of labor force attachment.
- Yet decreasing labor force participation among youth is a **widespread phenomenon.**

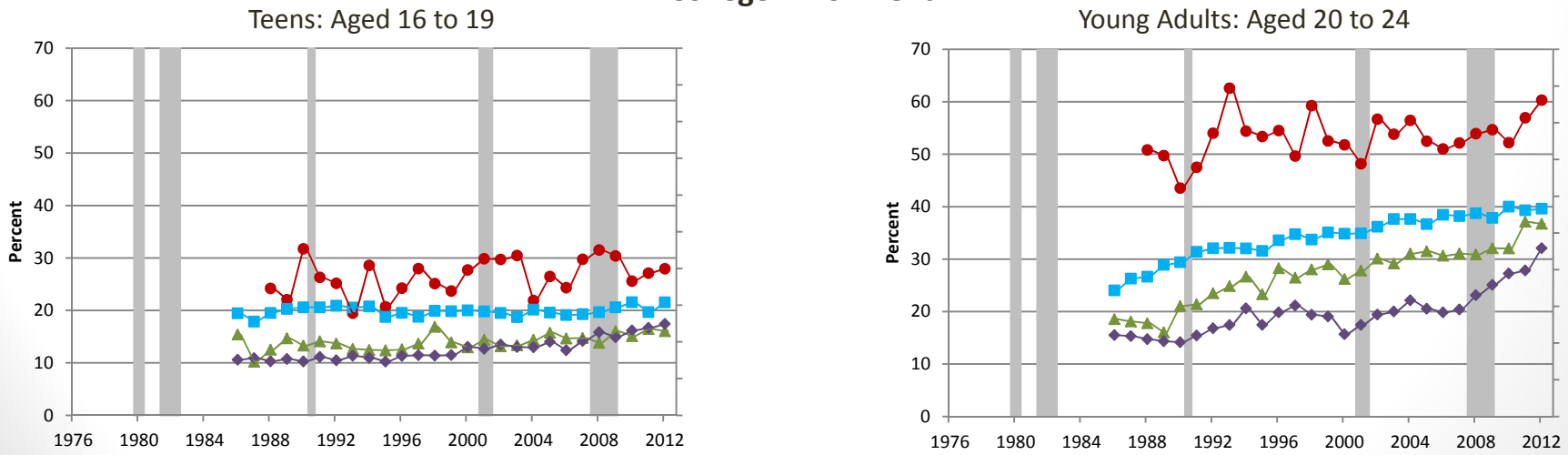
Minorities Have Lower Initial Levels of Labor Market Attachment. Yet Since 2000, Employment Has Fallen and College Enrollment Has Risen for All Groups.

Employment and College Enrollment among U.S. Youth by Race and Ethnicity, 1976–2012

Employment to Population Ratio



College Enrollment

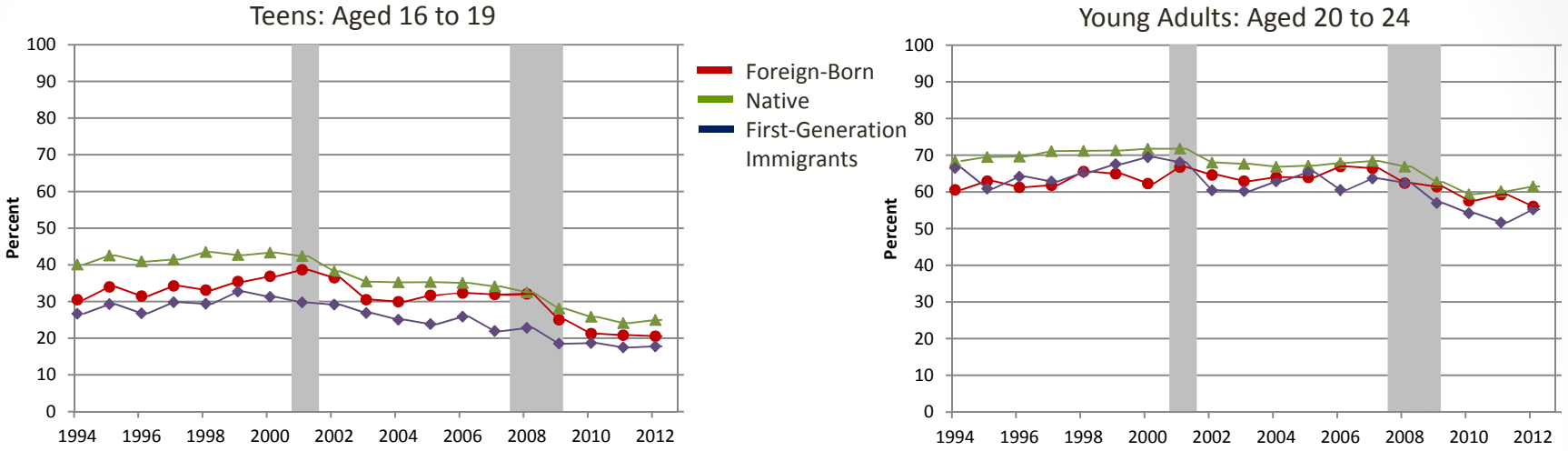


Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1976-2012
Note: CPS data on school enrollment not available prior to 1986. "Asian " race category not available prior to 1988.

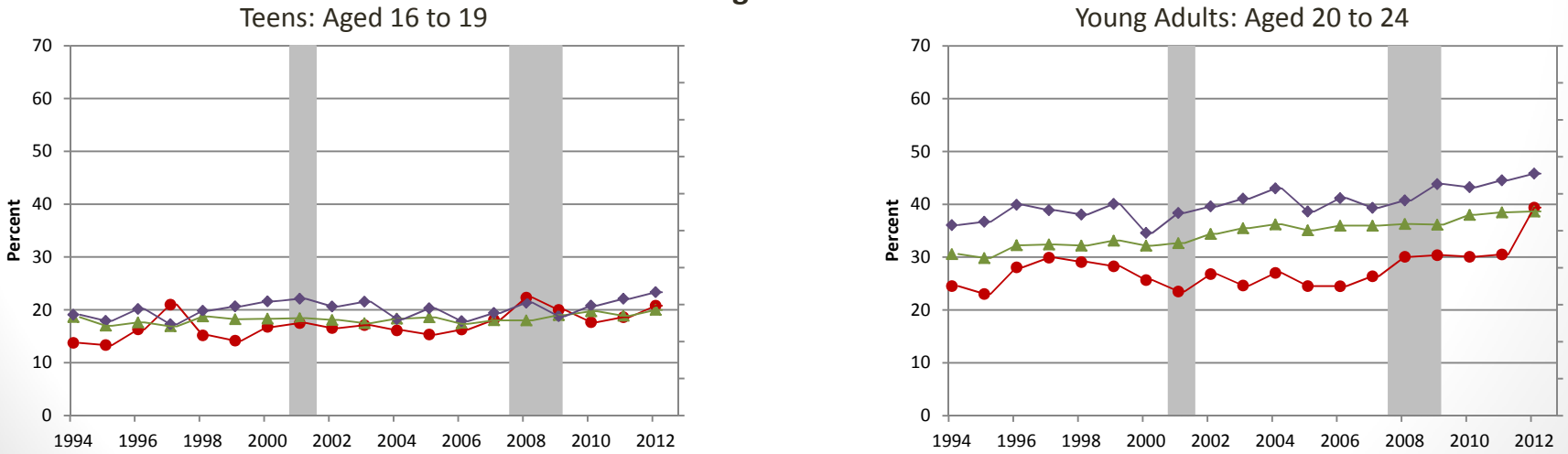
Since 2000, Foreign-Born Youth Have Seen Smaller Decreases in Employment and Larger Increase in College Enrollment, Narrowing the Gap with Natives.

Employment and College Enrollment among U.S. Youth by Nativity, 1994–2012

Employment to Population Ratio



College Enrollment

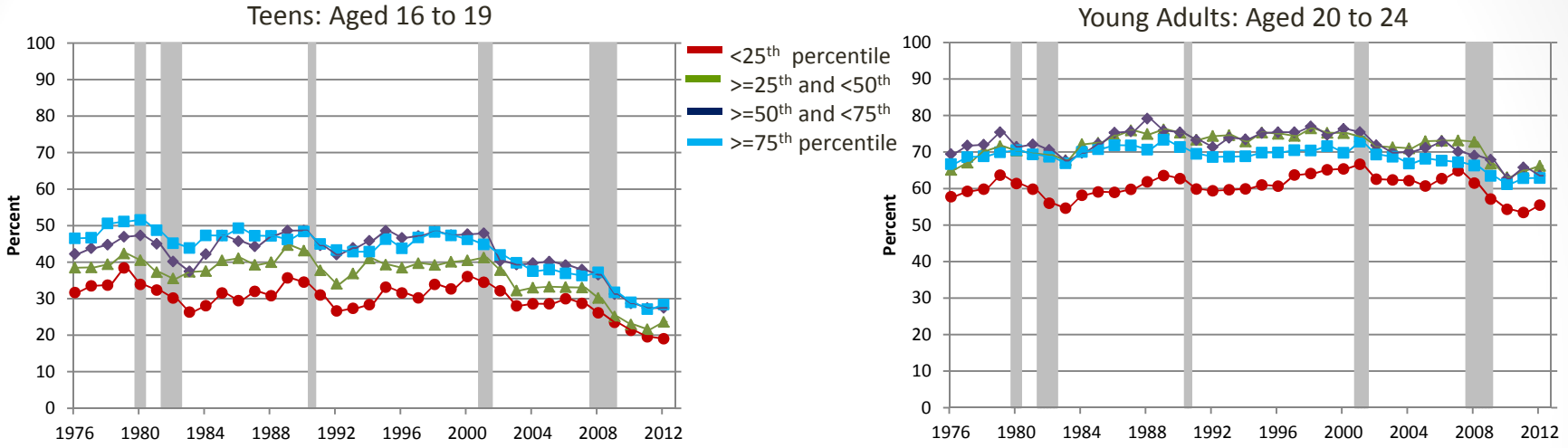


Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1994-2012
Note: CPS data on school enrollment not available prior to 1986. CPS data on nativity not available prior to 1994.

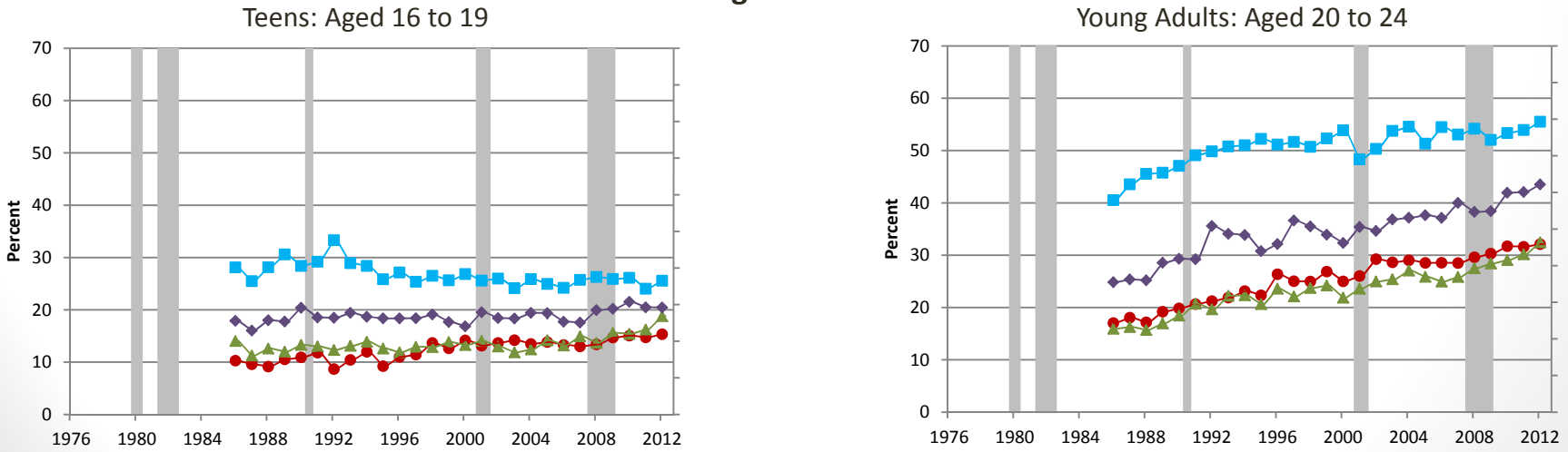
Despite Initial Differences, Trends in Employment and College Enrollment Were Fairly Similar Across Family Income Quartiles between 2000 and 2006.

Employment and College Enrollment among U.S. Youth by Family Income Quartile, 1976–2012

Employment to Population Ratio



College Enrollment

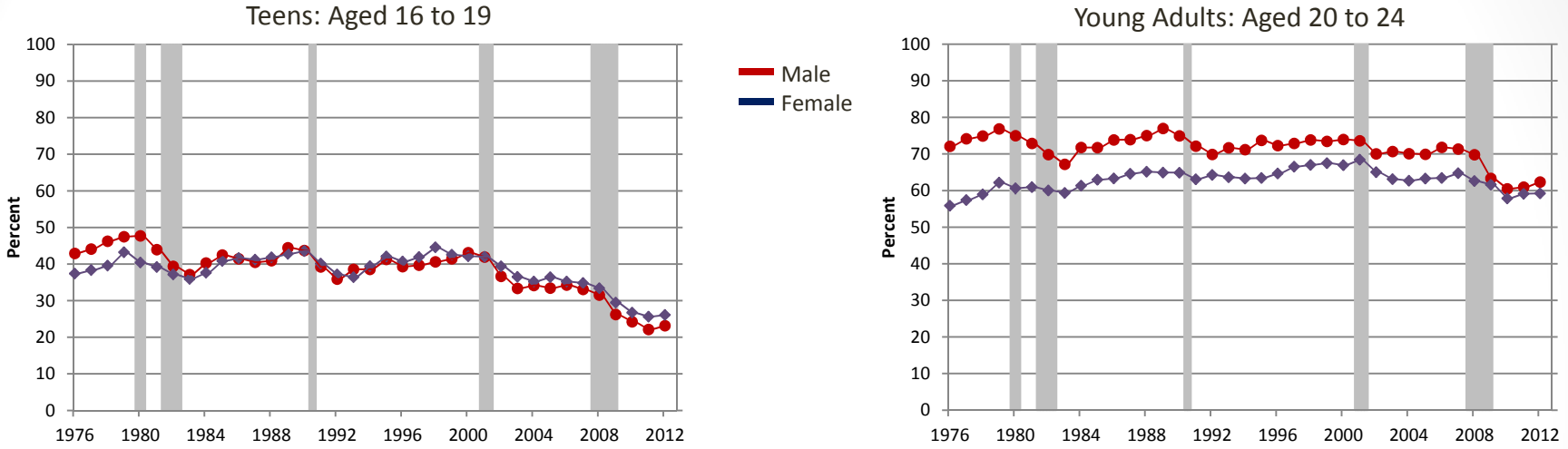


Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1976-2012
Note: CPS data on school enrollment not available prior to 1986.

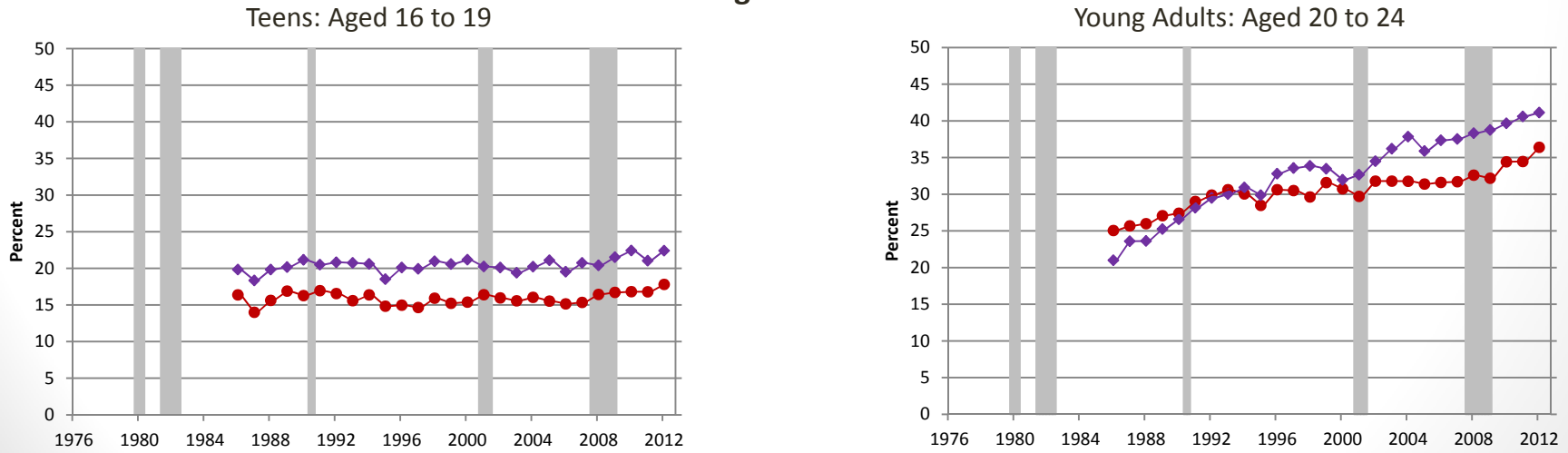
Labor force Attachment Decreased More for Males, While College Enrollment Increased More for Females—Particularly among Youth Aged 20 to 24.

Employment and College Enrollment among U.S. Youth by Gender, 1976–2012

Employment to Population Ratio



College Enrollment



Source: Authors' analysis of Current Population Survey Data (IPUMS-CPS), March 1976-2012
Note: CPS data on school enrollment not available prior to 1986.

More Detailed Breakdowns Reveal That Groups Undergoing the Greatest Labor Market Declines Experienced Slower Increases in School Enrollment.

Changes in Labor Market Measures for U.S. Teens by Demographic Group, 1990–2010

	Percent			Percentage Point Difference	
	2000	2006	2010	2000-2006	2006-2010
Employment to Population Ratio					
White native males	45.8	38.6	29.8	-7.1	-8.8
White native females	47.4	41.8	34.9	-5.6	-6.9
Black native males	26.2	21.9	16.0	-4.3	-5.9
Black native females	30.0	26.3	20.4	-3.8	-5.9
Hispanic males	39.9	35.0	25.0	-4.9	-10.0
Hispanic females	32.7	29.6	23.8	-3.2	-5.8
Share Enrolled in School					
White native males	81.4	84.5	85.1	3.1	0.6
White native females	83.6	87.4	88.1	3.8	0.7
Black native males	75.7	78.9	79.8	3.2	0.9
Black native females	79.0	82.3	83.9	3.3	1.5
Hispanic males	64.5	72.0	77.1	7.5	5.1
Hispanic females	71.9	78.1	81.8	6.2	3.7
Share Not Enrolled in School, Not Working					
White native males	6.2	6.1	7.5	-0.1	1.4
White native females	6.6	5.7	6.1	-0.9	0.4
Black native males	15.8	14.5	15.1	-1.3	0.6
Black native females	12.7	11.1	11.1	-1.6	-0.1
Hispanic males	14.1	10.7	11.4	-3.5	0.7
Hispanic females	16.7	12.9	11.3	-3.8	-1.5

Source: Authors' analysis of 2000 Decennial Census and ACS 3-year (2005-2007; 2009-2011) Public Use Microdata Samples (IPUMS-USA)
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Idleness among 20–24 Year Olds Increased Significantly for Most Groups during the Great Recession, but Only Increased for Native White Males Prior to That.

Changes in Labor Market Measures for U.S. Young Adults by Demographic Group, 1990–2010

	Percent			Percentage Point Difference	
	2000	2006	2010	2000-2006	2006-2010
Employment to Population Ratio					
White native males	75.3	71.7	65.7	-3.6	-6.0
White native females	71.0	69.7	66.9	-1.3	-2.8
Black native males	49.9	51.8	44.9	1.9	-6.9
Black native females	57.2	57.8	53.4	0.6	-4.4
Hispanic males	68.6	74.5	67.1	6.0	-7.4
Hispanic females	52.5	57.5	56.7	5.0	-0.8
Share Enrolled in School					
White native males	35.7	40.0	41.3	4.3	1.3
White native females	39.6	46.3	48.5	6.7	2.2
Black native males	27.1	29.4	31.9	2.3	2.4
Black native females	32.9	37.5	42.6	4.5	5.1
Hispanic males	20.9	22.4	26.9	1.5	4.4
Hispanic females	27.5	32.3	36.2	4.8	3.9
Share Not Enrolled in School, Not Working					
White native males	11.1	12.2	15.8	1.1	3.7
White native females	15.6	14.4	15.0	-1.3	0.6
Black native males	35.3	33.1	37.1	-2.2	4.0
Black native females	28.3	25.8	26.0	-2.4	0.2
Hispanic males	23.0	16.6	20.8	-6.3	4.2
Hispanic females	36.4	29.9	27.9	-6.4	-2.1

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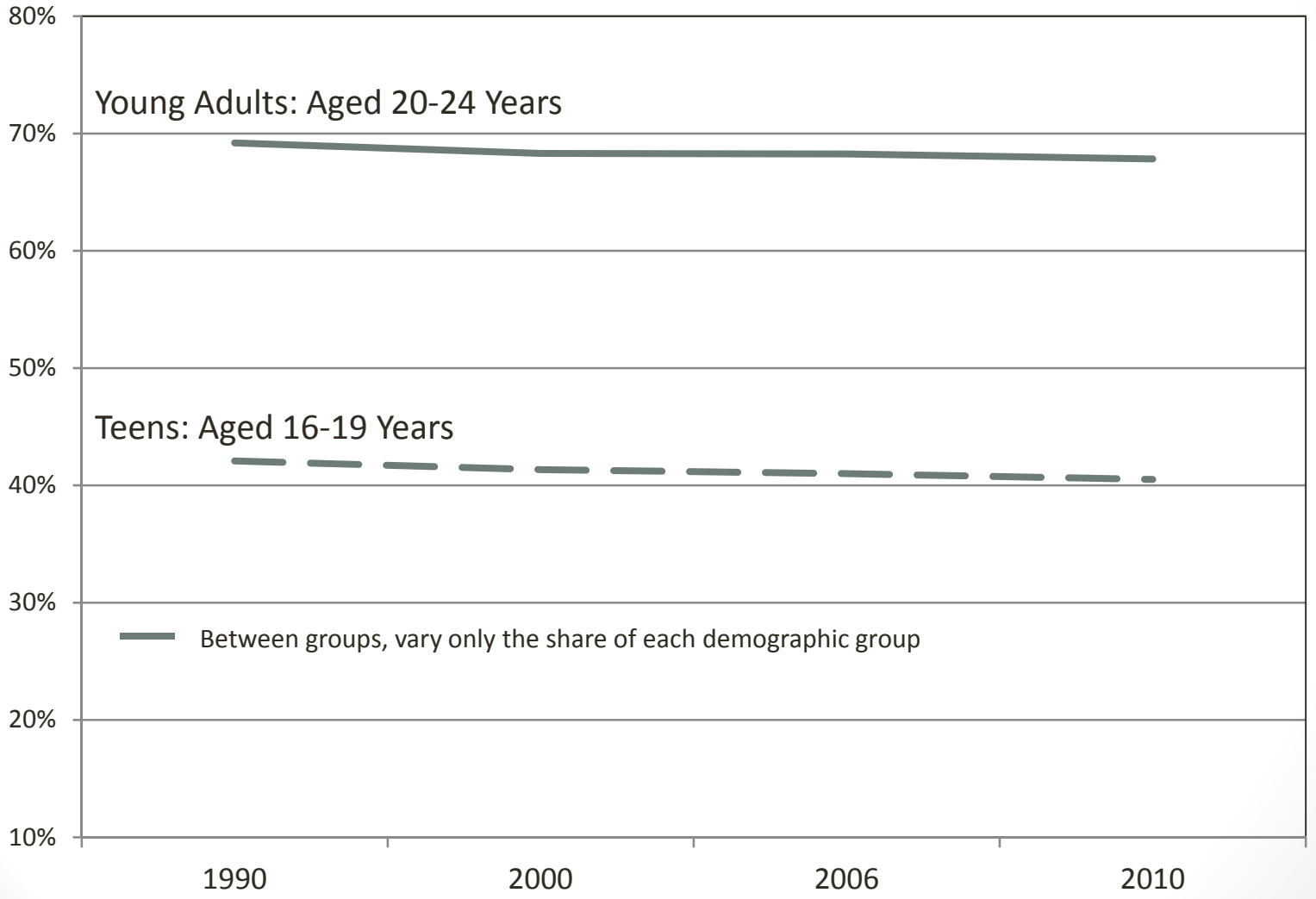
Despite These Differences, Falling Youth Labor Market Attachment Is the Result of Changes **Within** Demographic Groups, Not Changes in the Composition of the Youth Population.

Shift Share Analysis of Change in Employment to Population Ratio for U.S. Youth, 1990–2010



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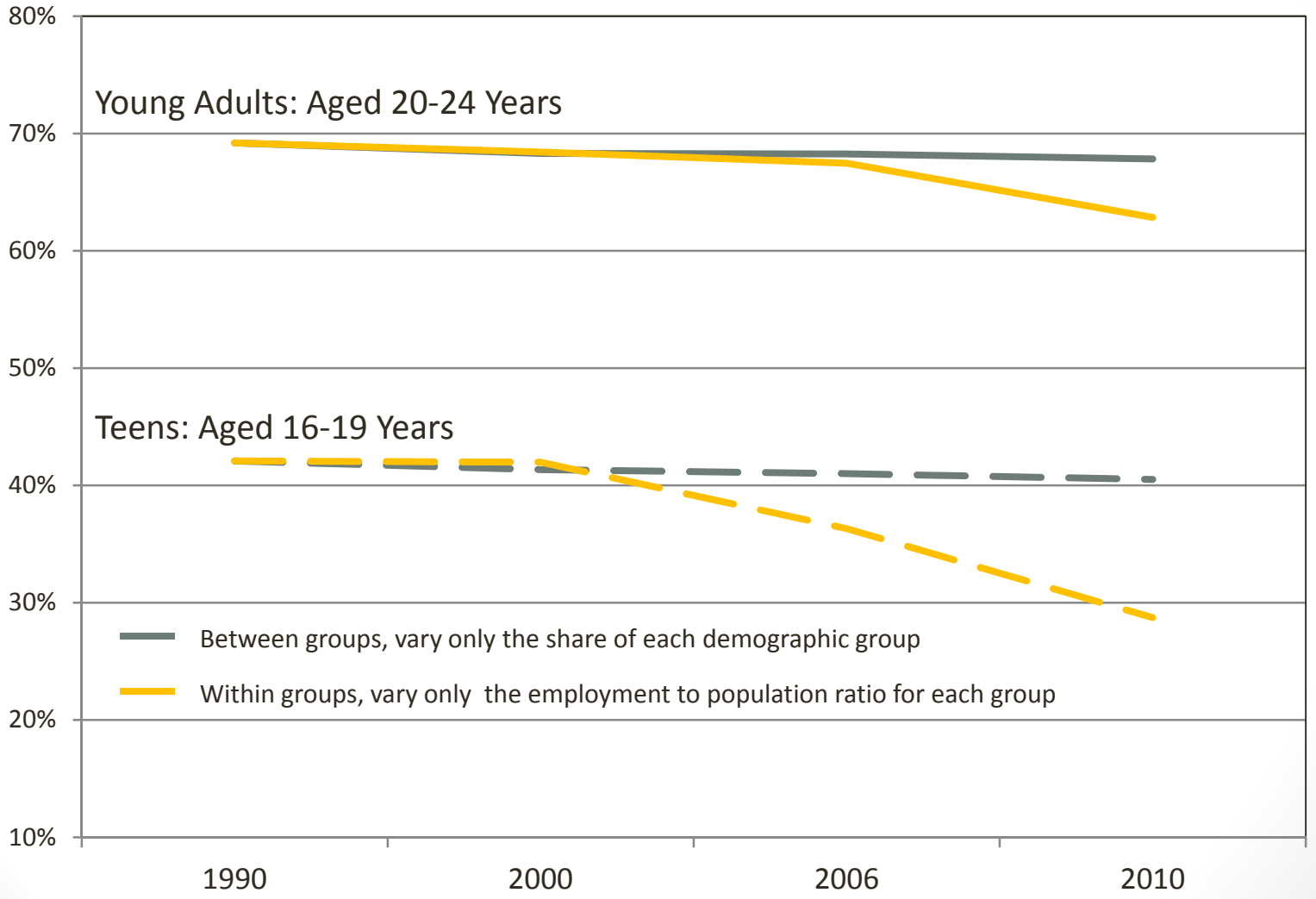

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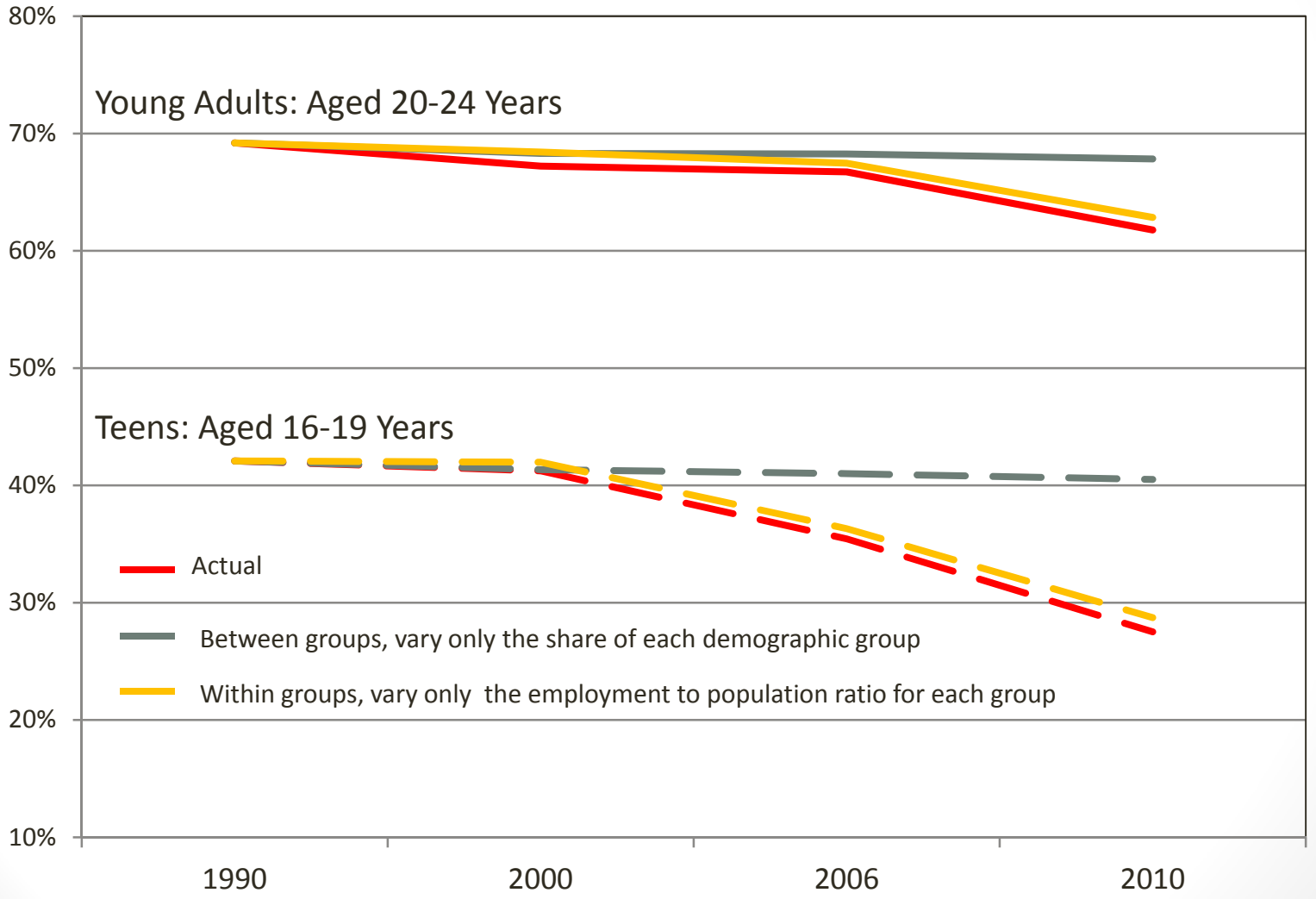

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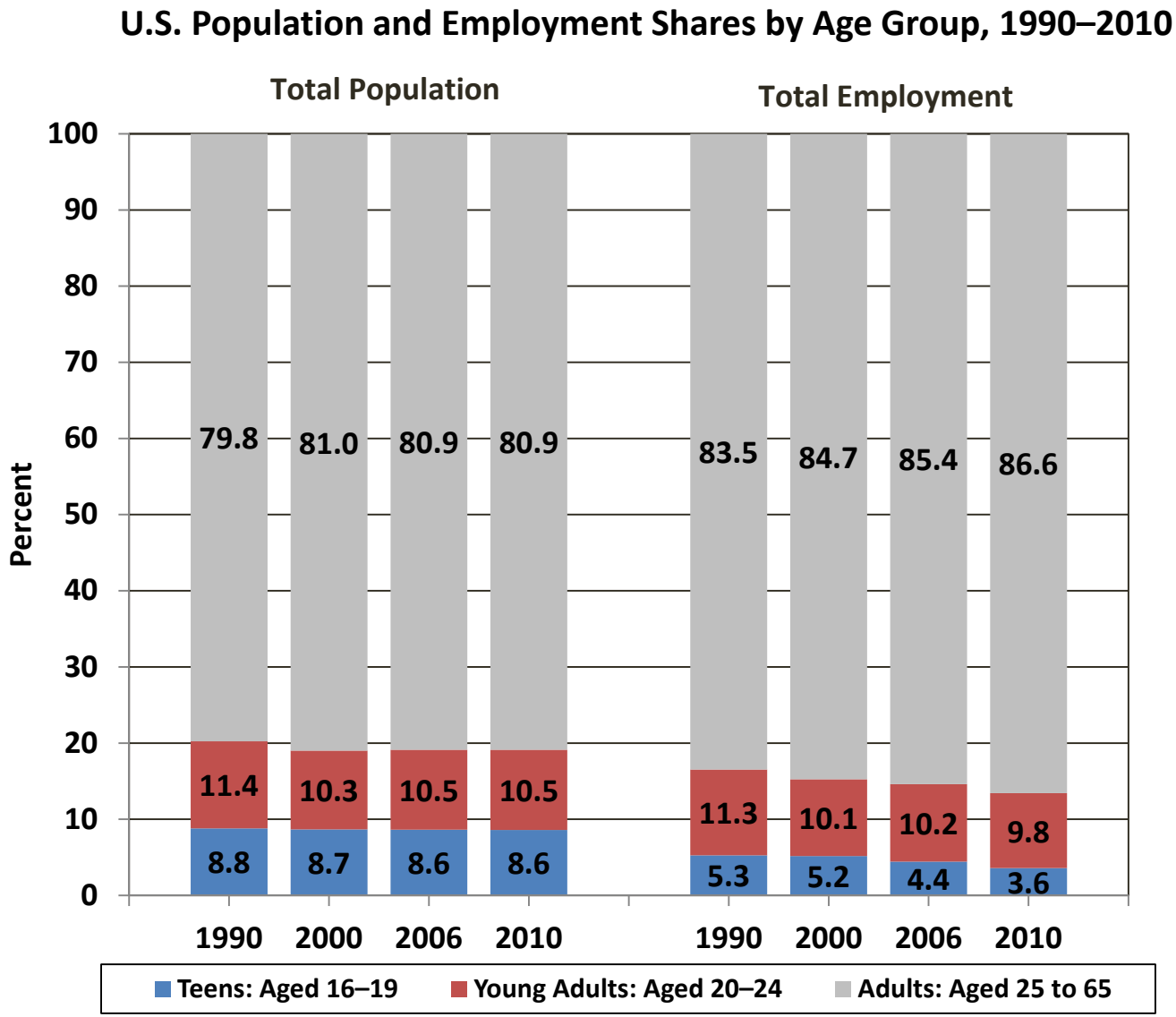
The Teen Employment Share Fell Disproportionately Relative to Their Population Share between 2000 and 2010



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Determining the Factors: How Have Shifts in Employment Across Industries and Occupations Affected Youth?

Hypothesis: Labor demand has shifted away from routine work and towards jobs that require technical skills or post-secondary training. Current education and workforce institutions have not provided youth with the relevant skills to obtain employment.

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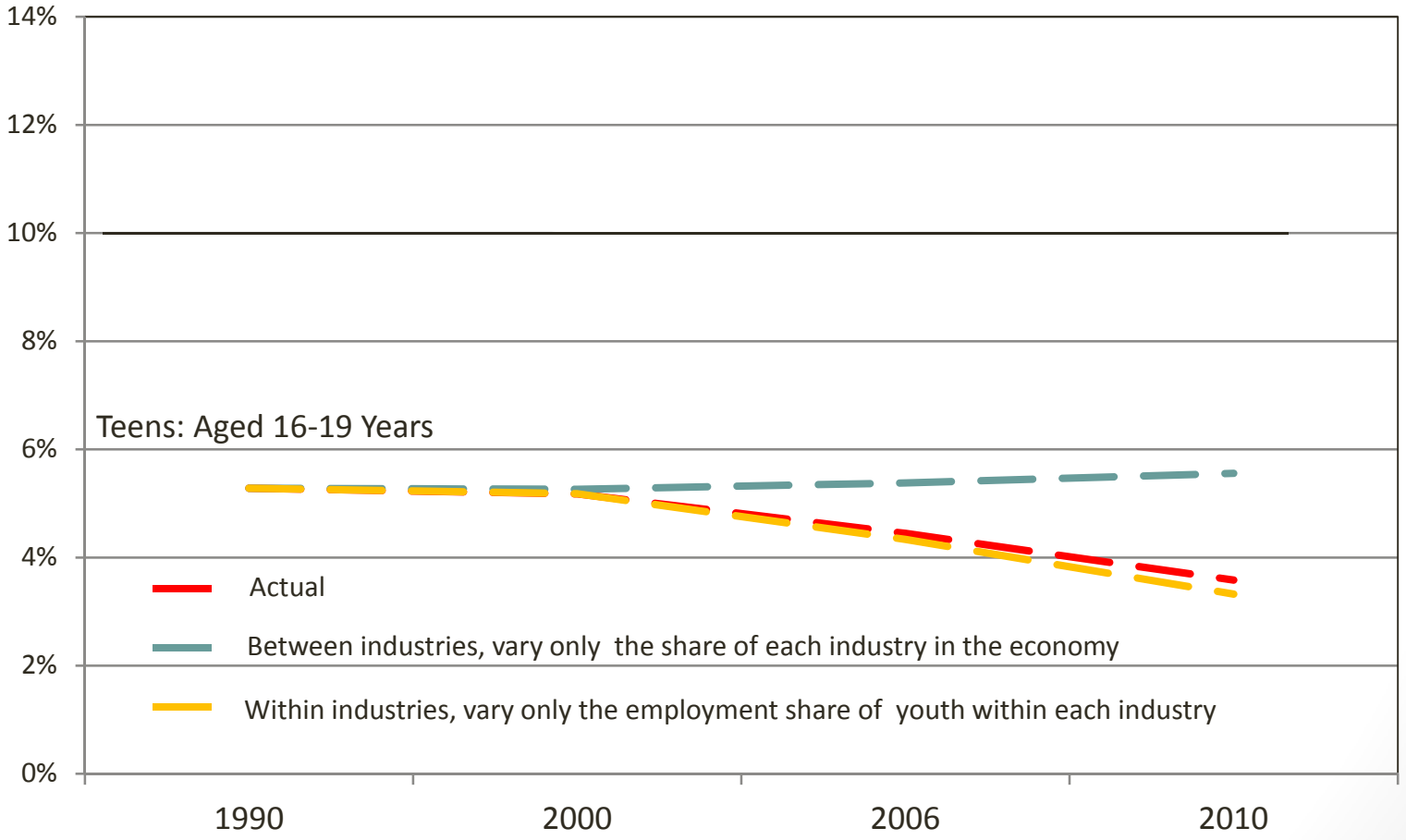
Findings:

- The overall decline in youth employment does not simply reflect the decline of large industry or occupation groups but rather a **shift away from employing youth** within most industries and occupations.
- It appears that the Great Recession, while having a negative impact on employment for all youth, has also **exacerbated these long-run structural trends** for 16-19 year olds.

The Decline in the Share of Employment for Youth Is Entirely due to Lower Employment of Youth Workers **within** Industries and Occupations Over Time—NOT Shifts across Industries and Occupations.

Industry Shift Share Analysis of U.S. Youth Employment Share, 1990–2010



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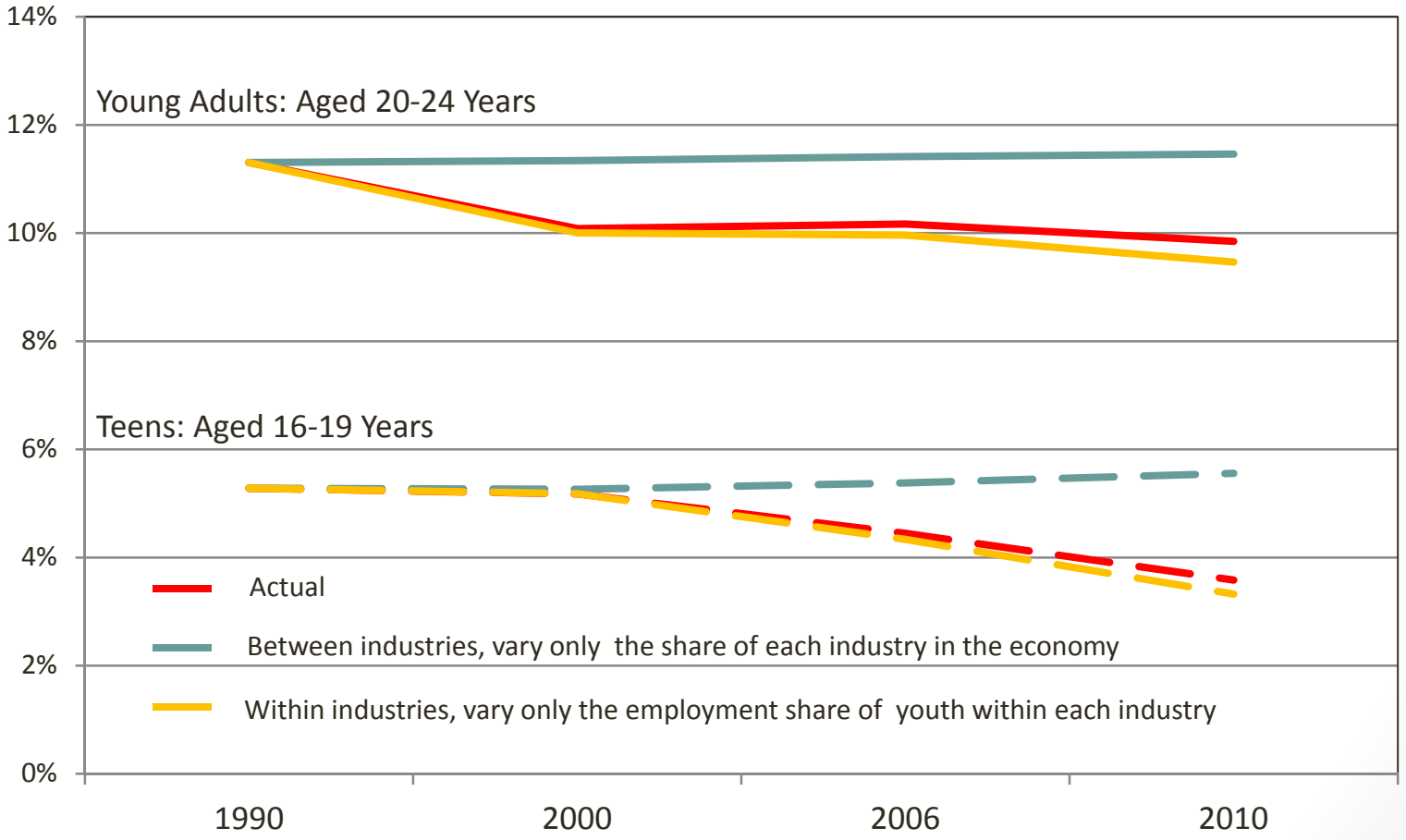
Note: Reported values for 2006 and 2010 are derived from the 2005-2007 and 2009-2011 ACS 3-year PUMS respectively.

The Decline in the Share of Employment for Youth Is Entirely due to Lower Employment of Youth Workers **within** Industries and Occupations Over Time—NOT Shifts across Industries and Occupations.

Industry Shift Share Analysis of U.S. Youth Employment Share, 1990–2010



Source: Authors' analysis of Decennial Census (1990; 2000) and ACS 3-year (2005-2007; 2009-2011) Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 and 2010 are derived from the 2005-2007 and 2009-2011 ACS 3-year PUMS respectively.

Among teens, industries that typically employ 16-19 year olds were largely growing during this period, not shrinking.

Industry Breakdown of U.S. Teen Employment, 2000–2006

	Percent of Teens Employed in 2000	Teen Share as a Percent of Total Employment		Percent Change in Employment 2000-2006	
		2000	2006	Teens	All Workers
All industries	**100**	**5.2**	**4.4**	**-7.6**	**7.7**
Top Teen Industries	**86.7**	**7.3**	**6.2**	**-4.9**	**12.1**
Teen share falling between 2000 and 2006	**80.0**	**7.2**	**6.0**	**-7.5**	**12.3**
Decreasing share of the economy	28.9	6.5	4.9	-25.3	-0.9
Increasing share of the economy	51.1	7.8	6.6	2.5	21.3
Teen share increasing between 2000 and 2006	**6.6**	**8.9**	**10.3**	**26.4**	**8.7**
Decreasing share of the economy	2.5	8.3	9.1	-7.4	-15.4
Increasing share of the economy	4.1	9.3	10.9	47.0	25.1

Source: Authors' analysis of 2000 Decennial Census and 2005-2007 ACS 3-year Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 are derived from the 2005-2007 ACS 3-year PUMS

In Contrast, Changes in Employment Shares for 20–24 Year Olds Were More Similar to That for All Workers between 2000 and 2006.

Industry Breakdown of U.S. Young Adult Employment, 2000–2006

	Percent of Young Adults Employed in 2000	Young Adult Share as a Percent of Total Employment		Percent Change in Employment 2000-2006	
		2000	2006	Young Adults	All Workers
All industries	**100**	**10.1**	**10.2**	**8.6**	**7.7**
Top Young Adult Industries	**83.2**	**11.0**	**11.2**	**12.7**	**11.2**
Young Adult share falling between 2000 and 2006	**44.6**	**9.5**	**8.8**	**2.8**	**10.8**
Decreasing share of the economy	20.8	8.4	7.6	-10.0	-1.1
Increasing share of the economy	23.8	10.7	9.8	14.0	23.9
Young Adult share increasing between 2000 and 2006	**38.6**	**13.7**	**15.2**	**24.2**	**11.8**
Decreasing share of the economy	13.8	14.4	15.6	2.4	-5.7
Increasing share of the economy	24.8	13.3	15.1	36.4	20.8

Source: Authors' analysis of 2000 Decennial Census and 2005-2007 ACS 3-year Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 are derived from the 2005-2007 ACS 3-year PUMS

It Appears that Jobs in Many of the Industries That Traditionally Employ Teens Aged 16–19 Years Are Either Disappearing ...

Detailed Industry Breakdown by Change in U.S. Teen Employment Share, 2000–2006

Industries with FALLING Youth Employment Share		Industries with RISING Youth Employment Share
DECREASING share of the economy		DECREASING share of the economy
Grocery stores Video tape rental Book and stationery stores Retail trade, n.s. Department stores Automotive repair and related services Business services, n.e.c. Agricultural production, livestock		
INCREASING share of the economy		INCREASING share of the economy

Source: Authors' analysis of 2000 Decennial Census and 2005-2007 ACS 3-year Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 are derived from the 2005-2007 ACS 3-year PUMS

Or Being Filled by Other Workers…

Detailed Industry Breakdown by Change in U.S. Teen Employment Share, 2000–2006

Industries with FALLING Youth Employment Share		Industries with RISING Youth Employment Share
DECREASING share of the economy		**DECREASING share of the economy**
Grocery stores Video tape rental Book and stationery stores Retail trade, n.s. Department stores Automotive repair and related services Business services, n.e.c. Agricultural production, livestock		
INCREASING share of the economy		**INCREASING share of the economy**
Eating and drinking places Apparel and accessory stores, except shoe Drug stores Shoe stores Sporting goods, bicycles, and hobby stores Theaters and motion pictures Hotels and motels Nursing and personal care facilities Landscape and horticultural services Miscellaneous personal services Gasoline service stations Motor vehicle dealers Lumber and building material retailing		

Source: Authors' analysis of 2000 Decennial Census and 2005-2007 ACS 3-year Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 are derived from the 2005-2007 ACS 3-year PUMS

There are few industries where teens are an increasing share of employment, and where that industry is increasing as a share of the economy.

Detailed Industry Breakdown by Change in U.S. Teen Employment Share, 2000–2006

Industries with FALLING Youth Employment Share		Industries with RISING Youth Employment Share
DECREASING share of the economy		**DECREASING share of the economy**
Grocery stores		Radio, TV, and computer stores
Video tape rental		Bowling centers
Book and stationery stores		Fishing, hunting, and trapping
Retail trade, n.s.		
Department stores		
Automotive repair and related services		
Business services, n.e.c.		
Agricultural production, livestock		
INCREASING share of the economy		**INCREASING share of the economy**
Eating and drinking places		Miscellaneous entertainment and recreation services
Apparel and accessory stores, except shoe		Museums, art galleries, and zoos
Drug stores		Lodging places, except hotels and motels
Shoe stores		Private households
Sporting goods, bicycles, and hobby stores		Miscellaneous professional and related services
Theaters and motion pictures		Miscellaneous vehicle dealers
Hotels and motels		
Nursing and personal care facilities		
Landscape and horticultural services		
Miscellaneous personal services		
Gasoline service stations		
Motor vehicle dealers		
Lumber and building material retailing		

Source: Authors' analysis of 2000 Decennial Census and 2005-2007 ACS 3-year Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 are derived from the 2005-2007 ACS 3-year PUMS

These trends are observed even within detailed occupation categories.

Detailed Occupation Breakdown by Change in U.S. Teen Employment Share, 2000–2006

Occupations with FALLING Youth Employment Share		Occupations with RISING Youth Employment Share
DECREASING share of the economy		**DECREASING share of the economy**
Retail sales clerks		Ushers
Salespersons, n.e.c.		Engravers
General office clerks		Proofreaders
Bank tellers		Drilling and boring machine operators
Data entry keyers		
Kitchen workers		
Automobile mechanics		
Vehicle washers and equipment cleaners		
Assemblers of electrical equipment		
Machine operators, n.e.c.		
INCREASING share of the economy		**INCREASING share of the economy**
Cashiers		Recreation workers
Stock and inventory clerks		Guides
Receptionists		Sales demonstrators / promoters / models
File clerks		Athletes, sports instructors, and officials
Cooks, variously defined		Protective services, n.e.c.
Waiter/waitress		
Waiter's assistant		
Misc food prep workers		
Housekeepers, maids, butlers, stewards		
Janitors		
Gardeners and groundskeepers		
Laborers outside construction		
Construction laborers		
Carpenters		
Nursing aides, orderlies, and attendants		
Health aides, except nursing		
Farm workers		

Source: Authors' analysis of 2000 Decennial Census and 2005-2007 ACS 3-year Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 are derived from the 2005-2007 ACS 3-year PUMS

Surprisingly, Many 20–24 Year Olds Have Found Employment in Those Very Same Occupations That Have Shed 16–19 Year Olds.

Youth share FALLING between 2000 and 2006	Youth Employment Growth: Percent Change 2000-2006		Youth Share of Employment: Percentage Point Change 2000-2006	
	Teens	Young Adults	Teens	Young Adults
Occupations that are a DECREASING share of the economy				
Bank tellers	-19.8	20.1	-2.4	3.7
Garage and service station related occupations	-32.7	24.3	-9.6	4.0
Kitchen workers	-35.3	13.4	-9.9	4.5
Motion picture projectionists	-21.0	27.9	-7.3	7.0
Photographic process workers	-33.9	7.9	-2.5	5.7
Retail sales clerks	-17.3	17.1	-2.7	3.0
Occupations that are an INCREASING share of the economy				
Cashiers	4.0	34.9	-2.8	3.4
Cooks, variously defined	-12.1	25.6	-4.0	1.3
Dental laboratory and medical appliance technicians	-8.8	57.6	-1.8	2.4
Hotel clerks	-21.7	23.8	-4.1	2.5
Misc food prep workers	14.1	62.0	-4.0	3.9
Nursing aides, orderlies, and attendants	-3.0	43.1	-1.1	0.9
Parking lot attendants	5.7	41.4	-3.2	1.2
Personal service occupations, nec	36.4	76.5	-2.8	3.1
Waiter/waitress	2.1	36.8	-3.3	4.3

Source: Authors' analysis of 2000 Decennial Census and 2005-2007 ACS 3-year Public Use Microdata Samples (IPUMS-USA)
Note: Reported values for 2006 are derived from the 2005-2007 ACS 3-year PUMS

Relative to All Workers, It Appears That Youth Jobs Were Disproportionately Located in Industries Showing Structural Gains during the Great Recession Suggesting That Workers May Need to Acquire New Skills.

Share of U.S. Employment in Industries Undergoing Structural Versus Cyclical Changes during the Great Recession, 2007–2013

	Share of Peak Employment (percent) for:		
	All Workers	16-19 Year Olds	20-24 Year Olds
GREAT RECESSION			
Total Nonfarm Peak Employment	100.0	100.0	100.0
Procyclical Industries	19.6	19.0	21.5
Countercyclical Industries	30.3	18.5	21.4
Industries with Structural Loss	20.2	12.1	19.1
Industries with Structural Gain	29.9	50.4	38.0
Sum of structural changes	**50.0**	**62.5**	**57.1**

Source: Author's analysis of BLS Current Employment Statistics (CES) and 2007 ACS Public Use Microdata Sample (IPUMS-USA)

Assessing the Consequences: Do Low Levels of Labor Market Attachment Among Youth Persisted Over Their Careers?

Hypothesis: Current youth are entering the labor market with lower levels of attachment that may persist over their lifetimes.

Conclusion: Future Uncertainty for America's Youth

- While all U.S. youth have been affected by the Great Recession**, teens experienced a decline in labor force attachment** even prior to the most recent downturn
- As a result of rising school enrollment, **youth did not become increasingly idle** prior to the Great Recession despite the sharp decrease in labor force attachment.
- The **shifting composition of the youth population** in the United States towards greater shares of minority, immigrant, and low-income groups does not account for the observed decline in youth labor market attachment since 2000
- The U.S. economy is **employing fewer teens within almost all industries and occupations**—whether these sectors are growing or declining as a share of total employment.
- The Great Recession appears to have **reinforced the pre-existing trends** that were observed among youth for the 2000 to 2006 period leading up to the recession.
- It remains to be seen whether the effects of this most recent and severe downturn will **persist as today's youth progress through their working lives**.

Discussion: Policy Implications

- One striking pattern that has emerged from these findings is the different labor market experiences of teens versus young adults. This result suggests that separate policy approaches are required to address the varying needs of these two groups.
  - For young adults, virtually all of the decrease in labor force attachment occurred during the Great Recession. Lost Generation?
  - For teens, it is not clear that the large and ongoing decline in labor force attachment will reverse itself as the economy continues to recover.

- Further research seems warranted to better understand the factors underlying the decline in labor force attachment among teens and ultimately inform policymakers as to the most effective course of action.
  - For some groups the observed decline in labor force attachment may simply reflect a temporary delay in entering the workforce while investing in additional human capital, although the success of that pathway is not guaranteed.
  - Of greater concern is the apparent difficulty that noncollege-bound youth have in transitioning to the labor market.

APPENDIX

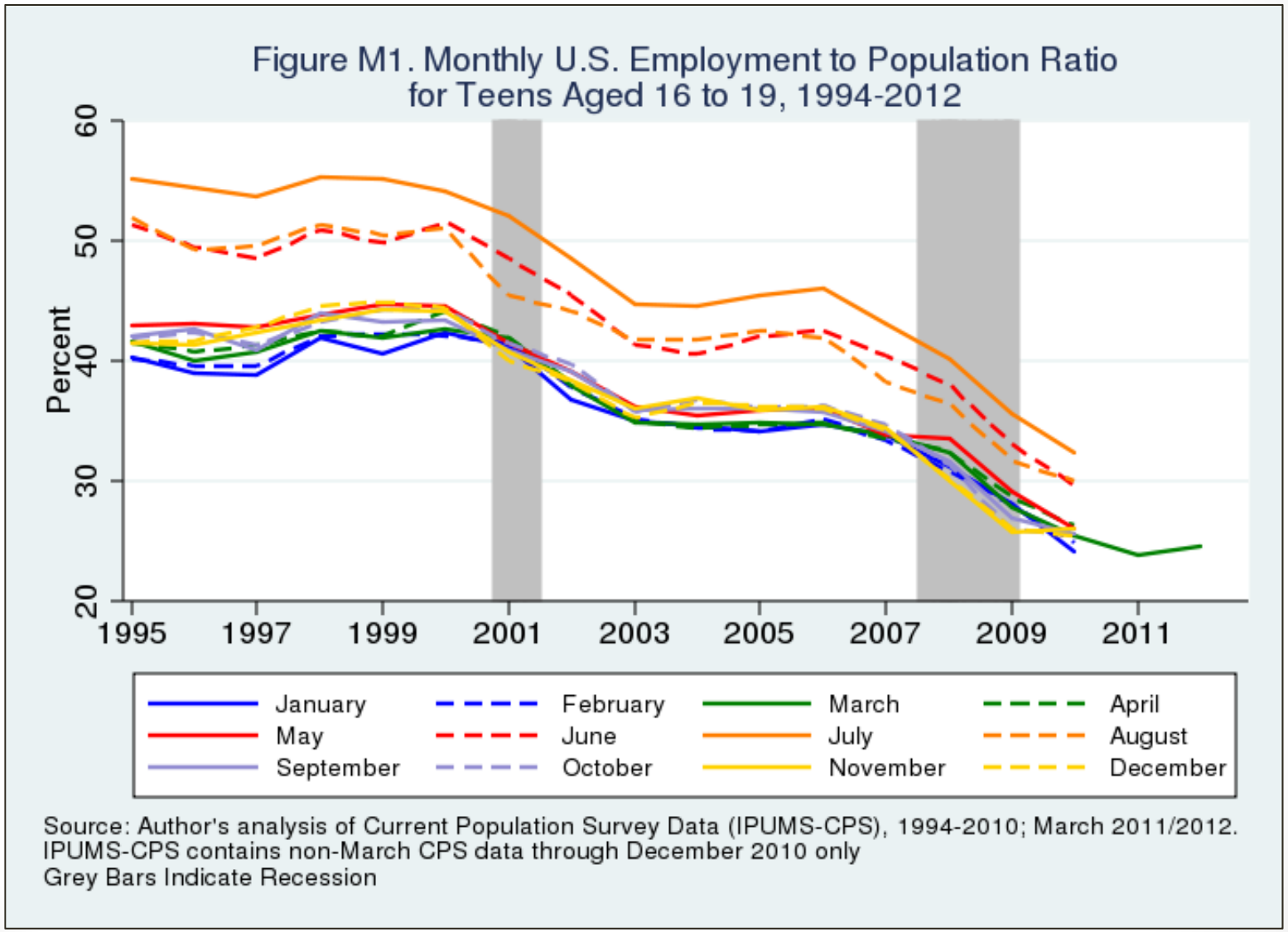
Potential Tracks for Future Policy Driven Research

- **1. Explore the structural factors underlying the long-run decline in youth employment**
  - What are the factors contributing to the structural portion of decline in teen employment LFP for non-college bound youth?
  - What are the potential consequences if this trend continues?
  - What mechanisms can be used to reverse the long-term decline in teen labor force participation?

- **2. Explore the cyclical impacts of the Great Recession on the current cohort of youth**
  - What are the short- and long-run costs associated with prolonged detachment of young adults from the labor force?
  - What policies can be implemented to ameliorate these impacts?
  - What are the costs and benefits of implementing such policies in the short-run versus the long-run?

- **3. Evaluate specific program(s) designed to address youth labor market issues**
  - How effective is the program in improving the labor market outcomes of youth aged 16-19 or 20-24?
  - What are the costs and benefits of implementing such a program in the short-run versus the long-run?
  - How could such a program be replicated or scaled up?

Robustness Check: Seasonality of Youth Employment

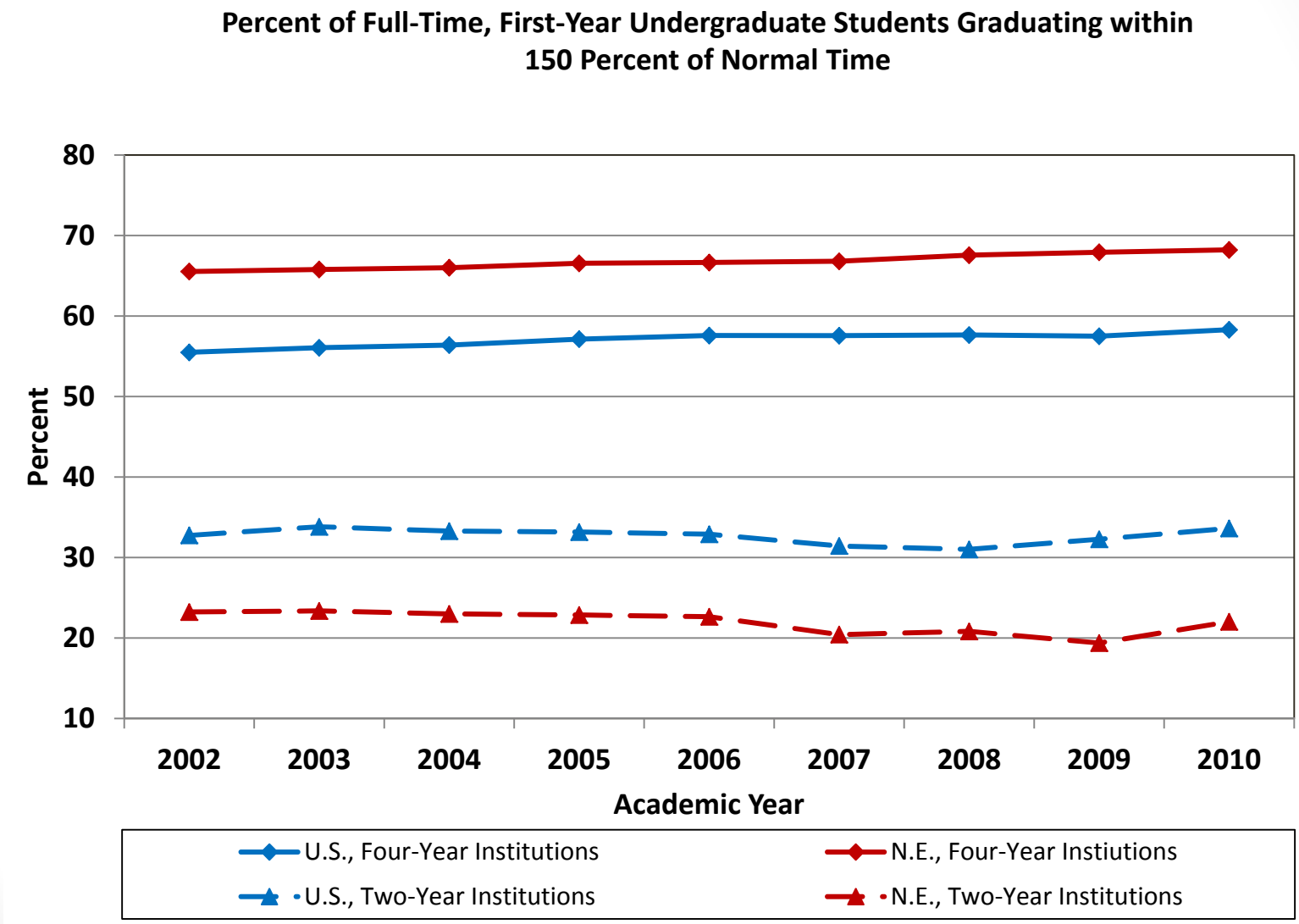


Source: Author's analysis of Current Population Survey Data (IPUMS-CPS), 1994-2010; March 2011/2012.
IPUMS-CPS contains non-March CPS data through December 2010 only
Grey Bars Indicate Recession

Changes in Employment during The Great Recession and Recovery for Top Industries that Employ U.S. Youth, 2007 – 2013

Performance Over Business Cycle	Share of Peak Employment (percent)			Youth Employment Share at Peak (percent)	
	All Workers	Teens: Age 16-19 Years	Young Adults: Age 20-24 Years	Teens: Age 16-19 Years	Young Adults: Age 20-24 Years
All Industries					
Procycical	19.6	19.0	21.5	4.3	10.6
Countercyclical	30.3	18.5	21.4	2.7	6.8
Structural Gain	29.9	50.4	38.0	7.6	12.4
Structural Loss	20.3	12.1	19.2	2.7	9.2
Sum of Structural Changes		50.2	62.5	57.2	5.6
Top Industries Experiencing Structural Gains					
Food services and drinking places	7.0	33.1	15.8	21.2	21.9
General merchandise stores	2.2	5.0	3.9	10.1	17.1
Educational services	2.2	2.4	2.8	5.1	12.6
Nursing and residential care facilities	2.2	2.1	2.3	4.4	10.2
Social assistance	1.8	1.6	1.9	3.9	10.5
Professional and technical services	5.7	1.5	3.9	1.2	6.6
Health and personal care stores	0.7	1.4	1.2	8.4	16.3
Ambulatory health care services	4.0	1.3	2.9	1.4	7.0
Personal and laundry services	1.0	0.8	1.1	3.9	11.0
Management of companies and enterprises	1.4	0.3	0.9	0.8	6.6
Top Industries Experiencing Structural Losses					
Specialty trade contractors	3.4	1.9	3.5	2.4	9.9
Sporting goods, hobby, book, and music stores	0.5	1.3	0.9	12.8	19.6
Miscellaneous store retailers	0.6	1.3	0.8	9.0	11.9
Building material and garden supply stores	0.9	1.2	1.3	5.8	13.4
Durable goods	2.3	0.8	1.5	1.6	6.5
Electronics and appliance stores	0.4	0.8	1.0	8.3	21.8
Rental and leasing services	0.5	0.8	0.9	7.4	19.1
Construction of buildings	1.3	0.7	1.3	2.4	9.9
Credit intermediation and related activities	2.0	0.6	2.0	1.4	9.7
Furniture and home furnishings stores	0.4	0.5	0.5	5.1	11.9
Couriers and messengers	0.4	0.3	0.5	3.3	12.2
Publishing industries, except Internet	0.6	0.3	0.5	1.9	7.0
Telecommunications	0.7	0.2	0.6	1.3	7.1

Graduation Rates from Two-Year and Four-Year Institutions
United States vs. New England



Source: NEPPC calculations from the IPEDS Analytics: Delta Cost Project Database.