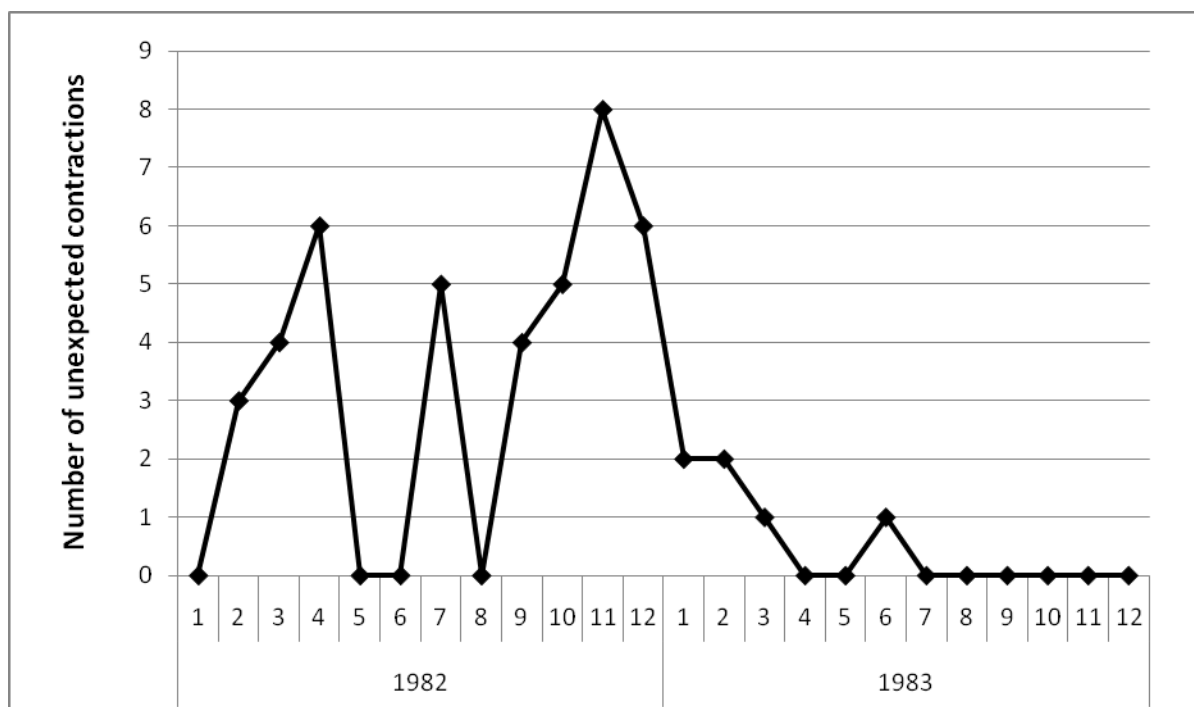
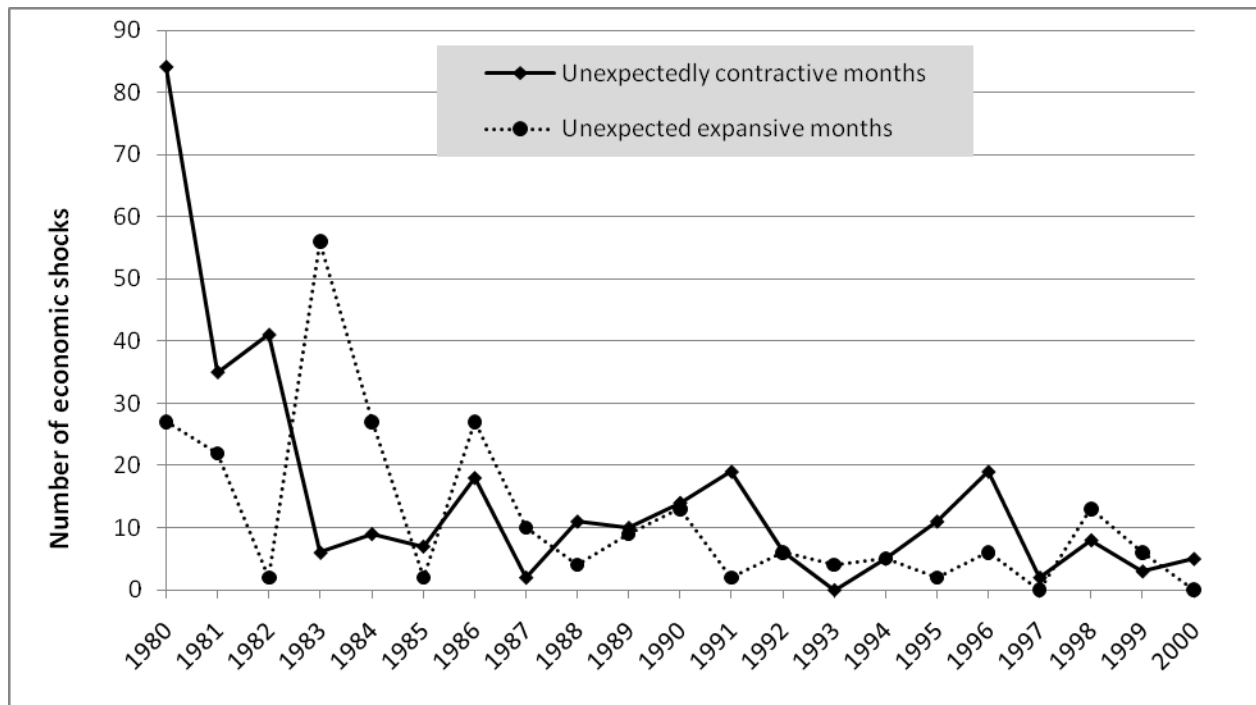


Appendix A1. Total number of unexpected contractions by month in all U.S. states in 1982 and 1983.



Appendix A2. Total number of unexpectedly contractive and expansive months in all U.S. states by year between 1980-2000.



Appendix B. Estimated associations between birth weight for gestational age outcomes and exposure to unexpected economic expansion in each trimester of gestation from multivariable adjusted linear regression models (n=6,715).¹

	Difference in birth weight percentile (95% CI)	Odds ratio for SGA (95% CI)	Odds ratio for term SGA² (95% CI)
<hr/> Unexpected economic expansion			
First trimester	-1.08 (-3.97, 1.82)	0.91 (0.65, 1.27)	0.89 (0.62, 1.28)
Second trimester	0.46 (-2.47, 3.40)	0.83 (0.58, 1.17)	0.80 (0.55, 1.16)
Third trimester	1.59 (-1.28, 4.46)	1.00 (0.72, 1.38)	0.93 (0.66, 1.31)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects

²Models included only term births (SGA vs. non-SGA); n=5,916

Appendix C1. Estimated associations between birth weight for gestational age outcomes and the positive residual values (difference between observed values and expected values based on ARIMA models) in each month of gestation from multivariable adjusted linear regression models (n=6,715).¹

	Difference in birth weight percentile (95% CI)	Odds ratio for SGA (95% CI)	Odds ratio for term SGA² (95% CI)
Positive residual values			
First month	-0.06 (-4.35, 4.23)	1.42 (0.89, 2.25)	1.58 (0.98, 2.55)
Second month	-0.26 (-4.00, 3.49)	1.04 (0.68, 1.57)	1.00 (0.65, 1.55)
Third month	1.26 (-3.08, 5.60)	0.97 (0.58, 1.61)	0.91 (0.53, 1.56)
Fourth month	2.97 (-1.40, 7.33)	0.81 (0.49, 1.34)	1.07 (0.64, 1.81)
Fifth month	-4.16 (-8.17, -0.16)	1.16 (0.75, 1.79)	1.15 (0.73, 1.81)
Sixth month	-1.99 (-6.20, 2.22)	1.25 (0.79, 1.97)	1.03 (0.63, 1.69)
Seventh month	3.37 (-0.89, 7.63)	0.83 (0.50, 1.36)	0.91 (0.55, 1.53)
Eighth month	3.56 (-0.62, 7.75)	0.84 (0.51, 1.38)	0.76 (0.44, 1.30)
Ninth month	-1.75 (-6.32, 2.83)	1.21 (0.74, 1.97)	1.15 (0.69, 1.90)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects

²Models included only term births (SGA vs. non-SGA); n=5,916

Appendix C2. Estimated associations between birth weight for gestational age outcomes and the negative residual values (difference between observed values and expected values based on ARIMA models) in each month of gestation from multivariable adjusted linear regression models (n=6,715).¹

	Difference in birth weight percentile (95% CI)	Odds ratio for SGA (95% CI)	Odds ratio for term SGA² (95% CI)
Negative residual values			
First month	-1.24 (-5.73, 3.24)	0.87 (0.53, 1.44)	0.93 (0.56, 1.55)
Second month	-3.26 (-7.85, 1.34)	1.03 (0.61, 1.74)	1.02 (0.60, 1.73)
Third month	2.20 (-2.53, 6.94)	0.88 (0.52, 1.49)	0.87 (0.51, 1.47)
Fourth month	2.72 (-1.83, 7.28)	1.01 (0.61, 1.67)	1.03 (0.62, 1.71)
Fifth month	-0.80 (-5.10, 3.50)	1.08 (0.66, 1.75)	1.09 (0.67, 1.77)
Sixth month	-0.14 (-4.71, 4.42)	1.10 (0.65, 1.89)	1.06 (0.62, 1.80)
Seventh month	-0.30 (-5.03, 4.43)	0.97 (0.58, 1.62)	0.96 (0.57, 1.61)
Eighth month	3.13 (-1.18, 7.44)	0.99 (0.61, 1.60)	0.97 (0.60, 1.57)
Ninth month	-2.08 (-6.59, 2.44)	1.12 (0.67, 1.87)	1.13 (0.67, 1.89)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects

²Models included only term births (SGA vs. non-SGA); n=5,916

Appendix D. Estimated associations between birth weight for gestational age outcomes and exposure to unexpected economic contraction in the three months before and after gestation from multivariable adjusted linear regression models (n=6,715).¹

	Difference in birth weight percentile (95% CI)	Odds ratio for SGA (95% CI)	Odds ratio for term SGA² (95% CI)
<hr/> Unexpected economic contraction			
Three months before gestation	1.46 (-1.56, 4.49)	0.94 (0.66, 1.32)	0.90 (0.63, 1.30)
Three months after gestation	0.33 (-2.98, 3.64)	1.09 (0.76, 1.58)	1.11 (0.75, 1.63)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects

²Models included only term births (SGA vs. non-SGA); n=5,916

Appendix E. Estimated associations between birth weight for gestational age outcomes and exposure to unexpected economic contraction in the first three months of gestation from multivariable adjusted linear regression models (n=6,715).¹

	Difference in birth weight percentile (95% CI)	Odds ratio for SGA (95% CI)	Odds ratio for term SGA² (95% CI)
<hr/> Unexpected economic contraction			
Month one	0.80 (-4.38, 5.98)	1.46 (0.87, 2.46)	1.61 (0.94, 2.73)
Month two	-4.20 (-8.87, 0.47)	1.29 (0.79, 2.11)	1.36 (0.82, 2.27)
Month three	-4.87 (-10.29, 0.54)	1.59 (0.93, 2.70)	1.55 (0.89, 2.69)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects

²Models included only term births (SGA vs. non-SGA); n=5,916

Appendix F. Estimated associations between exposure to unexpected economic contraction in each trimester and large for gestational age (LGA, >90th percentile) from multivariable adjusted linear regression models (n=6,715).¹

	Odds ratio for LGA
	(95% CI)
<hr/> Unexpected economic contraction	
First trimester	1.13 (0.59, 2.17)
Second trimester	0.50 (0.23, 1.09)
Third trimester	0.66 (0.30, 1.46)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects

Appendix G. Estimated associations between birth weight for gestational age outcomes and exposure to unexpected economic contraction in each trimester from multivariable adjusted linear regression models¹ using multiple imputation for missing covariates (n=6,715).

	Difference in birth weight percentile (95% CI)	Odds ratio for SGA (95% CI)
Unexpected economic contraction		
First trimester	-3.69 (-6.81, -0.57)	1.51 (1.10, 2.07)
Second trimester	-0.02 (-3.04, 2.99)	1.29 (0.94, 1.77)
Third trimester	0.59 (-2.69, 3.88)	0.74 (0.49, 1.11)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects

Appendix H. Estimated associations between birth weight for gestational age outcomes and exposure to unexpected economic contraction in each trimester from complete case analysis using multivariable adjusted linear regression models ¹(n=4,348).

	Difference in birth weight percentile (95% CI)	Odds ratio for SGA (95% CI)
Unexpected economic contraction		
First trimester	-2.98 (-6.61, 0.65)	1.34 (0.91, 1.97)
Second trimester	0.64 (-2.83, 4.10)	1.17 (0.80, 1.72)
Third trimester	-0.10 (-3.82, 3.61)	0.81 (0.51, 1.28)

¹Models additionally adjusted for sampling characteristics (economically disadvantaged or military at baseline), state and year fixed effects