Appendix A from Guvenen et al., "The Nature of Countercyclical Income Risk"
(JPE, vol. 122, no. 3, p. 621)

Data

This appendix provides data tables and figures to accompany the main text. Tables A1–A7 report a variety of summary statistics for the base sample used in the paper. Panis et al. (2000) and Olsen and Hudson (2009) contain detailed descriptions of the MEF data set.

Table A1. Summary Statistics of the Base Sample

Year	Median Earnings	Mean Earnings	Change in Log Average Earnings per Person × 100	Change in Log Earnings, Averaged over Workers × 100	Average Age	Observations
1978	39,489	47,939	. . .	. . .	39.3	3,640,646
1979	38,972	46,209	−1.37	1.10	39.3	3,797,110
1980	37,572	44,637	−3.16	−3.12	39.2	3,901,639
1981	37,908	44,786	.81	2.00	39.1	4,010,851
1982	36,645	44,161	−4.39	−3.26	39.1	3,977,141
1983	36,432	44,277	−.37	.58	39.0	4,020,277
1984	36,848	45,761	3.17	6.53	38.9	4,090,227
1985	37,010	46,772	3.90	4.40	38.9	4,242,948
1986	37,101	48,063	2.72	3.68	38.9	4,311,002
1987	36,789	47,662	.04	1.78	38.9	4,423,380
1988	36,330	48,481	2.83	3.85	38.9	4,552,404
1989	35,615	46,573	−3.29	.62	39.0	4,670,368
1990	35,207	46,263	−1.37	1.06	39.1	4,722,995
1991	34,452	45,766	−1.67	−1.30	39.3	4,768,322
1992	34,688	47,194	1.89	2.98	39.4	4,772,586
1993	34,661	47,471	.35	3.33	39.6	4,829,843
1994	34,231	44,816	−5.54	2.00	39.7	4,904,678
1995	34,281	45,645	2.55	3.85	39.9	5,000,567
1996	34,864	46,731	2.21	3.88	40.1	5,045,729
1997	35,874	48,898	5.07	6.38	40.3	5,134,047
1998	37,351	51,349	5.09	7.06	40.6	5,198,878
1999	37,900	52,846	3.66	4.43	40.8	5,284,067
2000	38,526	55,030	4.75	4.35	41.0	5,366,874
2001	39,011	55,283	−.20	1.93	41.2	5,376,382
2002	38,412	52,894	−6.01	−2.36	41.3	5,316,315
2003	38,187	53,146	.00	.55	41.5	5,302,976
2004	38,372	53,366	.35	2.16	41.6	5,329,828
2005	38,196	53,586	.50	2.12	41.7	5,359,742
2006	38,456	54,536	2.11	3.30	41.8	5,389,889
2007	38,526	55,322	1.52	2.44	41.8	5,404,929
2008	37,932	53,891	−3.87	−1.03	41.9	5,399,739
2009	37,015	51,989	−8.64	−6.51	42.0	5,230,315
2010	36,970	52,610	.20	1.37	42.1	5,153,986
2011	36,593	52,713	−2.17	3.34	42.0	5,228,171

NOTE.—All statistics are computed for the base sample with the exception of col. 3, which is computed by averaging wage earnings over all non–self-employed (male) persons (including those with zero earnings) and then taking the log difference of this average. Earnings are given in constant 2005 dollars.

Table A2. Summary Statistics of the Base Sample: Annual Wage and Salary Earnings

Year	Mean (Log)	Standard Deviation (Log)	Skewness (Log)	Maximum Earnings*
1978	10.456	.845	−.756	5,629,944
1979	10.442	.820	−.789	3,043,717
1980	10.398	.830	−.776	3,900,245
1981	10.406	.837	−.827	3,191,016
1982	10.372	.858	−.751	3,164,862
1983	10.357	.880	−.744	3,350,164
1984	10.376	.887	−.703	5,649,401
1985	10.386	.895	−.669	5,997,840
1986	10.393	.917	−.621	5,518,408
1987	10.380	.909	−.631	8,836,576
1988	10.378	.925	−.586	10,323,465
1989	10.352	.916	−.632	7,963,985
1990	10.339	.928	−.645	8,436,263
1991	10.324	.930	−.571	7,671,786
1992	10.337	.931	−.499	11,382,868
1993	10.341	.939	−.494	9,824,305
1994	10.325	.913	−.601	7,380,117
1995	10.335	.917	−.569	7,761,374
1996	10.352	.918	−.565	10,145,898
1997	10.393	.912	−.493	11,928,487
1998	10.441	.904	−.458	14,686,511
1999	10.458	.908	−.442	18,190,499
2000	10.476	.915	−.418	32,008,754
2001	10.487	.931	−.452	17,144,706
2002	10.457	.936	−.530	13,885,282
2003	10.453	.947	−.524	14,023,429
2004	10.454	.943	−.530	15,811,530
2005	10.453	.944	−.519	16,138,366
2006	10.462	.949	−.509	18,897,685
2007	10.465	.958	−.498	20,177,728
2008	10.450	.952	−.475	16,907,198
2009	10.417	.962	−.472	12,540,952
2010	10.423	.956	−.401	13,983,100
2011	10.419	.959	−.379	15,374,641

NOTE.—The sample is Winsorized at the 99.999th percentile. This condition eliminates about 37–54 individuals per year (corresponding to 370–540 males in the US economy).

* The maximum earnings reported in the last column corresponds to the truncation point.

Table A3. Percentiles of the Base Sample

YEAR	MINIMUM	MAXIMUM	WAGE EARNINGS PERCENTILES								
			P1	P5	P10	P25	P50	P75	P90	P95	P99
1978	7.34	15.54	7.78	8.76	9.39	10.10	10.58	10.93	11.28	11.63	12.42
1979	7.40	14.93	7.83	8.79	9.40	10.09	10.57	10.92	11.24	11.54	12.32
1980	7.39	15.18	7.79	8.72	9.32	10.04	10.53	10.89	11.21	11.49	12.29
1981	7.37	14.98	7.77	8.70	9.31	10.04	10.54	10.91	11.24	11.52	12.23
1982	7.39	14.97	7.75	8.63	9.23	9.99	10.51	10.89	11.24	11.52	12.26
1983	7.35	15.03	7.70	8.56	9.17	9.96	10.50	10.90	11.25	11.52	12.27
1984	7.31	15.55	7.68	8.58	9.20	9.97	10.52	10.91	11.27	11.57	12.33
1985	7.28	15.61	7.67	8.59	9.21	9.98	10.52	10.93	11.30	11.60	12.40
1986	7.26	15.52	7.64	8.57	9.19	9.97	10.52	10.94	11.33	11.68	12.47
1987	7.22	15.99	7.62	8.57	9.19	9.97	10.51	10.93	11.30	11.60	12.45
1988	7.18	16.15	7.59	8.55	9.18	9.95	10.50	10.93	11.33	11.68	12.49
1989	7.14	15.89	7.56	8.54	9.16	9.93	10.48	10.91	11.28	11.59	12.44
1990	7.10	15.95	7.52	8.50	9.13	9.91	10.47	10.91	11.29	11.59	12.42
1991	7.19	15.85	7.57	8.50	9.10	9.87	10.45	10.90	11.29	11.60	12.43

Table A3 (*Continued*)

			WAGE EARNINGS PERCENTILES								
YEAR	MINIMUM	MAXIMUM	P1	P5	P10	P25	P50	P75	P90	P95	P99
1992	7.27	16.25	7.63	8.51	9.11	9.88	10.45	10.91	11.31	11.62	12.48
1993	7.25	16.10	7.61	8.51	9.11	9.88	10.45	10.92	11.33	11.66	12.51
1994	7.23	15.81	7.61	8.53	9.13	9.88	10.44	10.90	11.29	11.58	12.35
1995	7.21	15.87	7.60	8.54	9.14	9.89	10.44	10.90	11.31	11.61	12.40
1996	7.18	16.13	7.60	8.56	9.17	9.91	10.46	10.92	11.33	11.63	12.44
1997	7.28	16.29	7.69	8.64	9.23	9.95	10.49	10.95	11.37	11.69	12.51
1998	7.35	16.50	7.76	8.71	9.30	10.00	10.53	10.98	11.41	11.74	12.56
1999	7.33	16.72	7.76	8.73	9.32	10.02	10.54	11.00	11.44	11.76	12.60
2000	7.31	17.28	7.75	8.74	9.33	10.04	10.56	11.01	11.46	11.79	12.65
2001	7.29	16.66	7.73	8.71	9.31	10.04	10.57	11.04	11.50	11.83	12.66
2002	7.28	16.45	7.68	8.64	9.24	10.01	10.56	11.03	11.47	11.79	12.57
2003	7.26	16.46	7.66	8.61	9.22	10.00	10.55	11.03	11.49	11.81	12.57
2004	7.23	16.58	7.65	8.62	9.23	10.00	10.56	11.03	11.47	11.78	12.59
2005	7.20	16.60	7.63	8.63	9.24	10.00	10.55	11.03	11.47	11.79	12.61
2006	7.17	16.76	7.62	8.64	9.25	10.01	10.56	11.03	11.49	11.81	12.64
2007	7.15	16.82	7.60	8.63	9.24	10.01	10.56	11.04	11.50	11.83	12.67
2008	7.24	16.64	7.66	8.62	9.22	9.98	10.54	11.03	11.49	11.81	12.63
2009	7.35	16.35	7.69	8.55	9.13	9.93	10.52	11.02	11.48	11.79	12.56
2010	7.44	16.45	7.76	8.59	9.15	9.93	10.52	11.02	11.49	11.80	12.60
2011	7.41	16.55	7.75	8.59	9.15	9.92	10.51	11.02	11.49	11.81	12.62

Table A4. Percentiles of the Base Sample (Age = 25)

Year	P10	P25	P50	P75	P90	P95	P99
1978	8.74	9.54	10.06	10.46	10.76	10.96	11.71
1979	8.77	9.54	10.06	10.45	10.74	10.90	11.46
1980	8.69	9.47	10.01	10.41	10.70	10.85	11.30
1981	8.65	9.45	10.00	10.41	10.72	10.89	11.38
1982	8.57	9.37	9.94	10.36	10.68	10.85	11.29
1983	8.51	9.31	9.90	10.32	10.65	10.83	11.24
1984	8.56	9.35	9.91	10.32	10.65	10.83	11.28
1985	8.56	9.35	9.91	10.32	10.65	10.83	11.26
1986	8.55	9.34	9.91	10.32	10.65	10.83	11.34
1987	8.54	9.33	9.90	10.30	10.63	10.81	11.25
1988	8.54	9.32	9.89	10.29	10.62	10.80	11.26
1989	8.52	9.31	9.87	10.28	10.60	10.79	11.22
1990	8.47	9.27	9.85	10.26	10.59	10.77	11.18
1991	8.46	9.20	9.79	10.21	10.55	10.73	11.15
1992	8.46	9.20	9.79	10.20	10.53	10.74	11.21
1993	8.45	9.20	9.79	10.20	10.55	10.77	11.28
1994	8.48	9.22	9.79	10.18	10.50	10.69	11.11
1995	8.47	9.23	9.80	10.19	10.51	10.70	11.14
1996	8.50	9.24	9.82	10.21	10.53	10.72	11.18
1997	8.56	9.30	9.85	10.25	10.58	10.79	11.29
1998	8.63	9.36	9.92	10.32	10.65	10.86	11.35
1999	8.64	9.38	9.94	10.35	10.68	10.89	11.37
2000	8.64	9.40	9.97	10.38	10.72	10.93	11.45
2001	8.60	9.36	9.97	10.40	10.75	10.98	11.52
2002	8.52	9.29	9.92	10.35	10.69	10.91	11.36
2003	8.48	9.25	9.89	10.32	10.66	10.87	11.34
2004	8.48	9.26	9.89	10.31	10.65	10.85	11.28
2005	8.48	9.27	9.88	10.31	10.65	10.86	11.30
2006	8.49	9.27	9.90	10.32	10.67	10.88	11.32

Table A4 (*Continued*)

Year	P10	P25	P50	P75	P90	P95	P99
2007	8.49	9.28	9.90	10.34	10.69	10.90	11.35
2008	8.49	9.25	9.88	10.32	10.69	10.90	11.32
2009	8.41	9.15	9.81	10.27	10.64	10.86	11.25
2010	8.45	9.15	9.77	10.23	10.60	10.83	11.24
2011	8.44	9.14	9.75	10.21	10.59	10.82	11.24

Table A5. Percentiles of the Base Sample (Age = 35)

Year	P10	P25	P50	P75	P90	P95	P99
1978	9.53	10.21	10.65	10.96	11.28	11.61	12.35
1979	9.51	10.19	10.63	10.94	11.24	11.51	12.24
1980	9.46	10.15	10.60	10.91	11.20	11.44	12.17
1981	9.46	10.16	10.61	10.92	11.22	11.47	12.13
1982	9.34	10.09	10.55	10.89	11.20	11.45	12.11
1983	9.26	10.06	10.54	10.89	11.20	11.45	12.11
1984	9.27	10.06	10.54	10.90	11.22	11.49	12.18
1985	9.29	10.06	10.54	10.91	11.24	11.51	12.22
1986	9.25	10.04	10.53	10.91	11.27	11.58	12.29
1987	9.23	10.03	10.52	10.90	11.24	11.51	12.22
1988	9.22	10.01	10.51	10.90	11.25	11.56	12.25
1989	9.18	9.97	10.48	10.87	11.22	11.48	12.20
1990	9.16	9.94	10.46	10.87	11.22	11.48	12.18
1991	9.12	9.90	10.44	10.85	11.21	11.48	12.19
1992	9.12	9.91	10.44	10.86	11.22	11.50	12.24
1993	9.11	9.90	10.43	10.86	11.24	11.52	12.26
1994	9.13	9.90	10.42	10.84	11.20	11.45	12.14
1995	9.15	9.91	10.41	10.84	11.20	11.47	12.18
1996	9.16	9.92	10.43	10.85	11.22	11.49	12.23
1997	9.23	9.95	10.45	10.87	11.27	11.56	12.30
1998	9.29	10.00	10.49	10.92	11.32	11.62	12.33
1999	9.30	10.02	10.50	10.93	11.35	11.65	12.39
2000	9.34	10.05	10.53	10.95	11.39	11.70	12.46
2001	9.32	10.05	10.54	10.99	11.44	11.75	12.47
2002	9.26	10.02	10.54	10.98	11.40	11.70	12.38
2003	9.25	10.02	10.54	10.98	11.41	11.70	12.37
2004	9.28	10.04	10.55	10.99	11.40	11.68	12.38
2005	9.28	10.04	10.55	10.99	11.40	11.68	12.39
2006	9.28	10.04	10.55	10.99	11.41	11.70	12.43
2007	9.29	10.04	10.55	11.01	11.42	11.70	12.42
2008	9.26	10.01	10.54	11.00	11.42	11.69	12.39
2009	9.17	9.96	10.52	10.98	11.39	11.65	12.30
2010	9.19	9.96	10.51	10.97	11.39	11.66	12.33
2011	9.18	9.94	10.49	10.97	11.39	11.66	12.33

Table A6. Percentiles of the Base Sample (Age = 45)

Year	P10	P25	P50	P75	P90	P95	P99
1978	9.70	10.33	10.75	11.07	11.46	11.83	12.58
1979	9.69	10.32	10.74	11.06	11.42	11.76	12.54
1980	9.65	10.28	10.71	11.04	11.38	11.71	12.52
1981	9.67	10.30	10.73	11.06	11.41	11.72	12.46
1982	9.58	10.26	10.71	11.06	11.43	11.75	12.53
1983	9.54	10.25	10.72	11.06	11.44	11.75	12.55
1984	9.55	10.27	10.74	11.10	11.48	11.82	12.64
1985	9.59	10.29	10.76	11.12	11.52	11.87	12.76

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Table A6 (*Continued*)

Year	P10	P25	P50	P75	P90	P95	P99
1986	9.59	10.30	10.78	11.15	11.60	12.01	12.81
1987	9.58	10.30	10.77	11.13	11.54	11.89	12.86
1988	9.55	10.27	10.76	11.13	11.57	11.93	12.88
1989	9.52	10.24	10.73	11.11	11.51	11.87	12.80
1990	9.50	10.24	10.74	11.11	11.50	11.85	12.77
1991	9.48	10.21	10.72	11.10	11.50	11.86	12.73
1992	9.47	10.19	10.71	11.09	11.49	11.84	12.75
1993	9.43	10.17	10.69	11.08	11.50	11.87	12.73
1994	9.41	10.14	10.66	11.06	11.44	11.76	12.58
1995	9.44	10.13	10.65	11.06	11.46	11.79	12.60
1996	9.43	10.14	10.65	11.06	11.46	11.79	12.61
1997	9.45	10.15	10.67	11.08	11.49	11.84	12.68
1998	9.53	10.19	10.69	11.10	11.54	11.88	12.72
1999	9.52	10.19	10.69	11.12	11.56	11.92	12.78
2000	9.51	10.19	10.69	11.13	11.58	11.95	12.85
2001	9.50	10.19	10.70	11.15	11.62	11.98	12.86
2002	9.46	10.17	10.68	11.14	11.59	11.93	12.75
2003	9.43	10.16	10.68	11.15	11.62	11.95	12.77
2004	9.44	10.17	10.68	11.14	11.59	11.93	12.78
2005	9.44	10.17	10.68	11.14	11.61	11.94	12.81
2006	9.46	10.18	10.69	11.16	11.63	11.96	12.87
2007	9.45	10.17	10.69	11.17	11.64	11.98	12.87
2008	9.43	10.15	10.68	11.16	11.62	11.95	12.82
2009	9.33	10.10	10.66	11.15	11.61	11.92	12.75
2010	9.39	10.13	10.68	11.16	11.62	11.95	12.80
2011	9.41	10.13	10.67	11.16	11.64	11.97	12.81

Table A7. Percentiles of the Base Sample (Age = 55)

Year	P10	P25	P50	P75	P90	P95	P99
1978	9.75	10.32	10.73	11.05	11.45	11.86	12.60
1979	9.74	10.31	10.72	11.04	11.42	11.78	12.55
1980	9.69	10.28	10.70	11.02	11.39	11.73	12.55
1981	9.69	10.28	10.72	11.05	11.42	11.74	12.53
1982	9.63	10.24	10.70	11.04	11.43	11.76	12.53
1983	9.58	10.24	10.71	11.06	11.43	11.76	12.57
1984	9.59	10.25	10.72	11.08	11.48	11.82	12.66
1985	9.61	10.28	10.74	11.10	11.51	11.86	12.74
1986	9.55	10.25	10.74	11.12	11.57	11.98	12.78
1987	9.55	10.25	10.73	11.10	11.51	11.88	12.84
1988	9.55	10.23	10.72	11.12	11.58	11.94	12.87
1989	9.53	10.21	10.70	11.08	11.50	11.87	12.86
1990	9.48	10.18	10.70	11.10	11.51	11.87	12.87
1991	9.46	10.17	10.70	11.11	11.54	11.90	12.81
1992	9.46	10.17	10.71	11.12	11.56	11.95	12.91
1993	9.44	10.16	10.70	11.12	11.57	11.96	12.91
1994	9.46	10.15	10.70	11.12	11.51	11.84	12.70
1995	9.46	10.16	10.70	11.13	11.55	11.89	12.74
1996	9.51	10.19	10.73	11.16	11.58	11.92	12.83
1997	9.54	10.21	10.75	11.18	11.62	11.97	12.87
1998	9.58	10.23	10.76	11.20	11.64	11.99	12.87
1999	9.59	10.24	10.77	11.21	11.66	12.02	12.96
2000	9.61	10.26	10.79	11.22	11.66	12.01	12.93
2001	9.61	10.27	10.79	11.24	11.68	12.05	12.94
2002	9.55	10.23	10.77	11.22	11.65	11.99	12.82

Table A7 (*Continued*)

Year	P10	P25	P50	P75	P90	P95	P99
2003	9.53	10.22	10.76	11.23	11.68	11.99	12.80
2004	9.51	10.20	10.74	11.20	11.63	11.95	12.82
2005	9.55	10.21	10.74	11.19	11.63	11.96	12.87
2006	9.55	10.21	10.74	11.20	11.64	11.98	12.87
2007	9.53	10.21	10.74	11.21	11.66	12.00	12.90
2008	9.53	10.19	10.72	11.19	11.65	11.99	12.86
2009	9.41	10.14	10.71	11.20	11.66	11.98	12.81
2010	9.44	10.15	10.71	11.20	11.67	12.00	12.85
2011	9.45	10.15	10.71	11.21	11.69	12.03	12.90

A. Data for Selected Figures in the Paper

This section contains data (tables A8, A9, and A10) used to plot some of the key figures (4, 5, 6, 13, and 14) in the main text. In addition, figure A1 plots selected percentiles of the earnings distribution over the sample period.

Table A8. Data for Figures 4, 5, and 6

	STATISTICS OF EARNINGS GROWTH (t to $t + k$)										
	Standard Deviation		Skewness		P10		P50		P90	
YEAR	1-Year	5-Year	1-Year	5-Year	1-Year	5-Year	1-Year	5-Year	1-Year	5-Year
1978	.59	.78	−.07	−.30	−51.1	−89.3	.81	3.46	51.3	73.8
1979	.55	.74	−.28	−.36	−53.5	−74.8	−.75	6.14	39.6	75.4
1980	.55	.73	−.24	−.26	−43.0	−63.8	1.66	10.17	52.8	84.3
1981	.56	.75	−.52	−.26	−60.9	−66.2	1.26	11.53	41.2	90.6
1982	.55	.74	−.46	−.12	−48.8	−58.0	2.03	12.94	46.5	94.1
1983	.55	.75	−.10	−.03	−36.8	−53.7	3.45	13.27	61.1	104.1
1984	.55	.74	−.03	−.08	−42.5	−60.0	3.02	9.46	56.3	89.9
1985	.55	.74	−.25	−.26	−46.2	−64.2	3.12	8.59	55.8	84.4
1986	.55	.75	−.20	−.24	−49.2	−73.6	1.92	6.13	51.0	81.6
1987	.54	.73	−.16	−.24	−41.3	−68.0	1.62	7.50	56.7	82.9
1988	.54	.75	−.26	−.27	−48.0	−73.3	1.01	7.52	47.3	84.9
1989	.53	.71	−.50	−.35	−44.9	−65.0	2.09	9.16	44.7	76.0
1990	.54	.71	−.34	−.20	−50.3	−60.9	.73	9.60	41.8	80.4
1991	.54	.72	−.30	−.18	−42.9	−55.4	2.75	12.31	50.3	87.9
1992	.55	.72	−.27	−.08	−43.9	−52.7	2.00	13.76	56.6	94.8
1993	.54	.73	−.37	−.01	−47.7	−51.7	2.67	16.70	47.7	100.5
1994	.51	.71	−.22	.05	−36.4	−41.0	2.60	18.06	48.1	100.5
1995	.51	.71	−.27	.03	−36.1	−41.1	2.89	18.91	46.9	100.8
1996	.51	.73	−.06	−.04	−32.8	−45.2	4.02	18.44	51.9	102.6
1997	.51	.73	−.12	−.36	−33.1	−58.9	4.96	15.40	53.0	89.6
1998	.51	.73	−.24	−.47	−37.2	−67.3	3.60	11.92	48.0	83.4
1999	.51	.71	−.24	−.52	−36.3	−66.2	3.30	10.38	47.7	75.6
2000	.53	.70	−.43	−.52	−43.5	−66.9	2.36	7.93	47.7	71.2
2001	.54	.71	−.78	−.41	−55.7	−68.6	1.83	8.04	38.8	74.3
2002	.54	.72	−.44	−.18	−46.0	−60.0	1.66	9.07	44.9	82.9
2003	.53	.73	−.32	−.15	−42.7	−64.1	2.29	8.07	46.1	82.6
2004	.51	.74	−.27	−.37	−37.3	−75.4	1.08	5.21	45.0	72.2
2005	.51	.72	−.23	−.37	−35.6	−73.0	2.15	5.35	45.5	69.9
2006	.51	.70	−.32	−.32	−37.7	−71.0	2.00	4.20	44.2	67.9
2007	.51		−.42		−44.2		.50		38.7	
2008	.53		−.98		−58.4		.09		30.7	
2009	.51		−.34		−37.7		.98		41.9	
2010	.50		−.12		−32.0		1.06		45.4	

NOTE.—Entries for P10, P50, and P90 are multiplied by 100.

Table A9. Data for Figure 13: Growth in Log Average Earnings during Recessions, Prime-Age Males

Percentiles of $\bar{Y}_{t-1}$	1979–83	1990–92	2000–2002	2007–10
1	3.1	−4.2	−6.8	−22.1
2	.4	−6.1	−9.3	−29.2
3	−5.1	−8.7	−7.7	−29.2
4	−7.0	−5.3	−8.4	−27.0
5	−12.3	−6.1	−7.2	−26.2
6	−12.8	−5.9	−8.0	−26.3
7	−12.6	−6.0	−7.1	−26.2
8	−15.7	−5.9	−6.6	−25.0
9	−17.3	−5.2	−7.4	−25.2
10	−16.9	−5.6	−5.7	−23.2
15	−16.7	−4.8	−5.4	−21.3
20	−14.0	−4.4	−5.6	−19.1
25	−13.6	−3.6	−4.6	−17.8
30	−14.0	−3.3	−3.9	−16.4
35	−12.4	−3.1	−3.1	−15.3
40	−11.4	−3.0	−3.6	−14.6
45	−11.7	−3.0	−2.9	−14.3
50	−8.9	−2.2	−3.2	−12.6
55	−8.4	−1.6	−2.7	−12.4
60	−8.5	−1.8	−2.7	−12.3
65	−7.8	−1.5	−3.4	−12.0
70	−7.9	−2.0	−2.9	−11.9
75	−7.2	−2.0	−3.3	−10.3
80	−8.2	−1.5	−4.5	−9.5
85	−6.6	−.6	−4.1	−9.2
90	−3.7	.2	−4.3	−8.2
91	−4.1	−.4	−3.1	−8.0
92	−4.2	.0	−5.4	−8.0
93	−4.7	−.2	−5.8	−8.2
94	−6.4	.9	−6.2	−8.4
95	−4.6	−.2	−8.0	−9.6
96	−6.2	2.3	−9.8	−9.1
97	−5.3	3.4	−10.7	−9.7
98	−4.7	3.9	−13.5	−10.6
99	−5.1	4.1	−18.7	−12.4
100	−1.5	6.3	−32.6	−26.7

Table A10. Data for Figure 14: Growth in Log Average Earnings during Expansions, Prime-Age Males

Percentiles, $\bar{Y}_{t-1}$	1983–90	1992–2000	2002–7
1	19.9	44.7	11.4
2	8.6	30.8	3.6
3	6.1	24.9	−.8
4	3.0	20.2	−.8
5	2.0	24.0	−2.2
6	1.7	16.3	−1.8
7	1.1	13.7	−2.6
8	1.4	14.7	−2.3
9	1.3	14.3	−2.3
10	.8	12.3	−4.2
15	−.7	8.9	−3.3
20	−.8	6.4	−2.9
25	−1.4	4.2	−3.4
30	−3.2	2.4	−3.0

Table A10 (*Continued*)

Percentiles, $\overline{Y}_{t-1}$	1983–90	1992–2000	2002–7
35	−3.9	1.2	−3.2
40	−3.6	.5	−3.8
45	−5.2	−.8	−4.9
50	−4.7	−3.7	−6.0
55	−4.8	−4.9	−5.8
60	−4.8	−4.2	−5.4
65	−5.8	−1.3	−4.9
70	−4.3	−1.4	−4.5
75	−5.2	−1.9	−3.9
80	−5.5	−1.2	−3.0
85	−1.7	2.6	−.8
90	1.6	6.5	.8
91	3.9	9.8	1.2
92	4.9	11.5	1.7
93	6.5	12.9	3.0
94	6.2	16.9	4.5
95	11.2	16.8	5.5
96	9.9	18.7	7.3
97	15.0	24.1	8.9
98	14.8	26.5	12.2
99	18.8	26.2	15.2
100	19.1	5.5	15.8
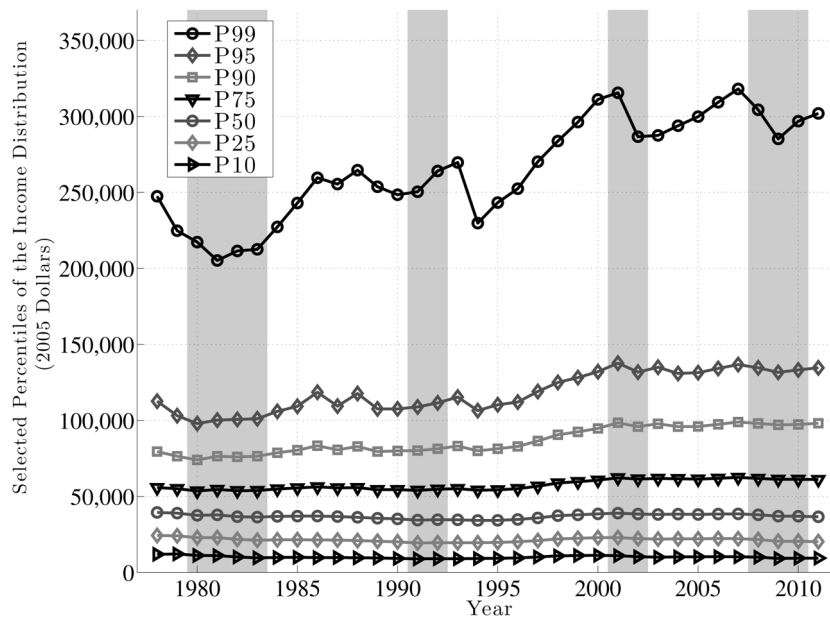
FIG. A1.—Selected percentiles of wage earnings distribution over time

B. Comparison to CPS Data

Figure A2 plots the log differential between the 90th and 50th percentiles of the labor earnings distribution, as well as the log differential between the 50th and 10th percentiles (hereafter abbreviated as L90–50 and L50–10, respectively). A couple of remarks are in order. First, it is useful to compare this figure to the CPS data, which have been used extensively in the previous literature to document wage inequality trends. An important point to keep in mind is that studies that used the CPS have typically focused on hourly wage inequality, whereas our data set contains information on only annual (wage

and labor) earnings. With this difference in mind, note that Autor et al. (2008) report a level of L90–50 of 55 log points in 1978, which rises by about 30 log points until 2005. In this paper, the level of L90–50 is 72 log points (most likely higher because of the dispersion in labor supply) and rises by about 28 log points until 2005, a result similar to Autor et al.'s numbers. In both data sets, the rise in L90–50 is secular and is remarkably stable over three decades.[27] Thus, even though the difference between hourly wage and annual earnings matters for the levels, it has little effect on the secular trend during this period.

Second, turning to the bottom end, the CPS data show slightly different patterns, depending on whether one uses CPS March weekly wages or May/Outgoing Rotation Groups hourly data. But the general pattern is a rapidly widening L50–10 gap from 1978 to 1987, which then stays flat or declines, depending on the data set. In our case, the rise in L50–10 happens between 1979 and 1983, and then it stays relatively flat until 2000, after which time it starts rising again. It seems safe to conjecture that labor supply heterogeneity could be more important at the bottom end and could account for some of the gap between the two data sets. Another source of the difference could be the underreporting of earnings in our administrative data set or overreporting in the CPS. Some papers on measurement error adopt this latter interpretation (e.g., Gottschalk and Huynh 2010). Notice also that the level of L50–10 is much higher in our sample: about 125 log points in 1978 compared with 65 log points in the CPS, which again can be explained by a combination of labor supply heterogeneity and under- or overreporting.[28] Overall, the two data sets reveal the same pattern at the top end while having similar but slightly different behavior at the bottom.
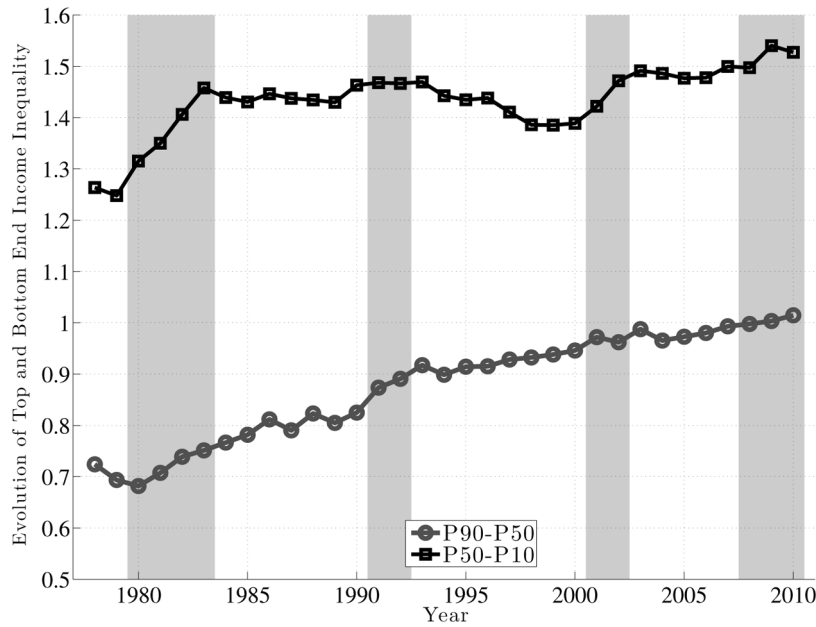

FIG. A2.—Top and bottom ends of labor earnings distribution

C.   Evolution of Inequality: Cross-Sectional Data

In this section we document some facts about the evolution of cross-sectional inequality. In particular, inequality is clearly countercyclical, and this is due to an expansion of inequality at both the top end and the bottom end. This analysis does not require the panel dimension; it is presented here for completeness and comparison to the existing work.

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[27] Fitting a quadratic polynomial to the L90–50 reveals a small negative curvature, indicating an ever so slight slowdown in the rate of increase of inequality at the top.

[28] In our sample, the average wage earnings at the 10th percentile is $8,520 per year. If an individual works 52 weeks a year at a wage of $5.85 per hour (the legal minimum wage in 2007), he has to work 28 hours per week, which does not appear to be an unreasonable figure.

It is useful to distinguish between the changes in top- and bottom-end inequality. To this end, we plot the 1-year change in L90–50 and L50–10 in figure A3. To reduce short-term mean reversion in inequality, the solid lines plot the 2-year difference in each inequality measure (divided by 2), which is smoother. This differencing eliminates the secular trend and allows us to focus on the cyclical change in inequality.

First, notice the cyclical movement in the bottom-end inequality, rising in every one of the four recessions and falling (into the negative territory) subsequently. The increases in the 1980–83 and 2001–2 recessions are especially pronounced, as is the fall during the 1990s. The change in the top-end inequality is also cyclical, rising during the 1980–83 and 1991–92 recessions. Compared with the bottom-end inequality, though, L90–50 rises virtually throughout the period. Overall, the combination of these two pieces shows that overall inequality (L90–10) itself is countercyclical.
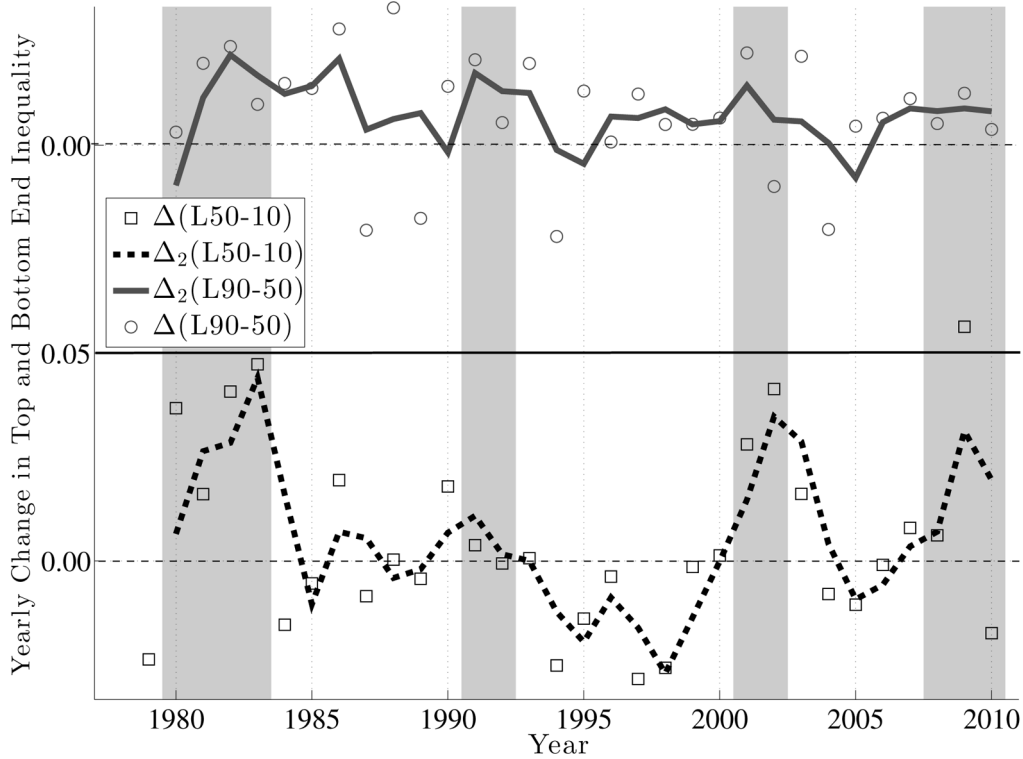

FIG. A3.—Change in top and bottom ends earnings inequality