## Getting Rich Slowly: How Saving and Investing Over a Work Career (1973–2013) Combined to Produce a \$1+ Million Nest Egg

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The tables on this and the following pages show the results of saving the relatively modest maximum allowable IRA contribution each year, starting in 1973 for an assumed 25-year-old worker, and continuing through 2013, when the worker turned 65. (To illustrate results for a career from age 25 to 65, we assumed IRA accounts were available in 1973, versus their actual 1975 inception date.) Each year's contribution was assumed to be equally divided into 12 monthly installments, with the first installment made at the end of January 1973. We assumed investment performance that equaled that of the S&P 500 Stock Index. Starting in 2002, workers age 50 or older were allowed somewhat higher contribution limits, and we incorporated these higher limits in 2002 (when our sample worker was 54) through 2013. Rather than try to quantify the tax advantages of IRA contributions, we simply point out that these tax advantages made it easier to contribute to IRA accounts.

Year End:	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Worker's Age:	25	26	27	28	29	30	31	32	33	34
Annual IRA Contribution:	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	2,000	2,000
Cumulative Contributions:	1,500	3,000	4,500	6,000	7,500	9,000	10,500	12,000	14,000	16,000
Annual S&P 500 Return:	-14.69%	-26.47%	37.23%	23.93%	-7.16%	6.57%	18.61%	32.50%	-4.92%	21.55%
Year of Initial Contribution										
1973	1,399	1,029	1,412	1,748	1,623	1,730	2,049	2,713	2,580	3,132
1974		1,315	1,804	2,234	2,074	2,210	2,618	3,466	3,296	4,002
1975			1,588	1,967	1,826	1,946	2,305	3,052	2,902	3,523
1976				1,598	1,483	1,581	1,872	2,479	2,358	2,862
1977					1,499	1,597	1,891	2,505	2,382	2,892
1978						1,553	1,839	2,436	2,316	2,812
1979							1,609	2,131	2,026	2,460
1980								1,759	1,672	2,030
1981									1,969	2,391
1982										2,419
Year-end Value:	1,399	2,344	4,804	7,548	8,504	10,616	14,183	20,540	21,501	28,523

Discussion continued -

Table continued -

Bear markets lead to short-term losses and great long-term returns. See note next to the 2013 column.



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Year End:	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	
Worker's Age:	35	36	37	38	39	40	41	42	43	44	
Annual IRA Contribution:	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
Cumulative Contributions:	18,000	20,000	22,000	24,000	26,000	28,000	30,000	32,000	34,000	36,000	
Annual S&P 500 Return:	22.56%	6.27%	31.73%	18.67%	5.25%	16.61%	31.69%	-3.10%	30.47%	7.62%	
Year of Initial Contribution											
1973	3,837	4,077	5,388	6,384	6,718	7,847	10,318	9,991	13,043	14,043	
1974	4,903	5,210	6,885	8,157	8,584	10,027	13,184	12,766	16,666	17,944	
1975	4,316	4,587	6,062	7,182	7,557	8,828	11,608	11,239	14,673	15,798	
1976	3,507	3,726	4,925	5,834	6,140	7,172	9,430	9,131	11,920	12,834	
1977	3,543	3,765	4,975	5,894	6,203	7,245	9,527	9,224	12,042	12,966	
1978	3,445	3,661	4,838	5,731	6,031	7,045	9,264	8,970	11,710	12,608	
1979	3,014	3,203	4,233	5,015	5,277	6,164	8,105	7,848	10,245	11,031	
1980	2,488	2,644	3,494	4,139	4,355	5,088	6,690	6,477	8,456	9,105	
1981	2,929	3,113	4,114	4,874	5,129	5,991	7,878	7,628	9,958	10,722	
1982	2,963	3,149	4,161	4,930	5,188	6,060	7,968	7,716	10,073	10,845	
1983	2,099	2,231	2,948	3,492	3,675	4,293	5,645	5,465	7,135	7,682	
1984		2,135	2,821	3,342	3,517	4,108	5,402	5,230	6,828	7,352	
1985			2,288	2,710	2,852	3,332	4,381	4,242	5,538	5,962	
1986				2,063	2,171	2,536	3,334	3,228	4,214	4,538	
1987					1,771	2,069	2,721	2,634	3,439	3,703	
1988	İ					2,112	2,777	2,689	3,510	3,779	
1989							2,212	2,142	2,797	3,011	
1990								2,024	2,643	2,845	
1991									2,225	2,395	
1992	ĺ									2,121	
1993											
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2004											
Year-end Value	37,043	41,499	57,132	69,748	75,167	89,914	120,441	118,644	157,114	171,286	
							1				
	It took 17 years to										

It took 17 years to exceed \$100,000.

On one hand, the results are straightforward. We made no heroic assumptions. Compared to a 401(k) with employer matching (and higher contribution limits), an IRA is not the easiest way to save for retirement. Despite several bear markets during 1973 – 2013 (some steep), the favorable ending results were driven primarily by (1) starting to save at age 25, (2) consistently saving what many would consider relatively modest amounts, and (3) achieving S&P 500 returns. Indeed, significantly improved results could have been achieved by starting to save at an earlier age and/or by saving more. (Imagine starting with 2013's contribution limit of \$5,500, rather than the 1973 limit of \$1,500.) Better investment results would also help, but for the purpose of this analysis we choose to emphasize the easier alternatives. On the other hand, relatively few 65-year-olds in 2013 have amassed \$1+ million nest eggs. (This statement does not apply to our clientele.) The reasons for this include (1) not saving on a consistent basis, especially in the critical earlier years, (2) not saving enough, (3) making withdrawals, and (4) failing to achieve S&P 500 returns.

Year End:	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Worker's Age:	45	46	47	48	49	50	51	52	53	54	55	56
Annual IRA Contribution:	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	3,500	3,500	3,500
Cumulative Contributions:	38,000	40,000	42,000	44,000	46,000	48,000	50,000	52,000	54,000	57,500	61,000	64,500
Annual S&P 500 Return:	10.08%	1.32%	37.58%	22.96%	33.36%	28.58%	21.04%	-9.10%	-11.89%	-22.10%	28.68%	10.88%
Year of Initial Contribution												
1973	15,446	15,648	21,505	26,467	35,298	45,386	54,931	49,935	44,001	34,274	44,108	48,903
1974	19,736	19,994	27,478	33,819	45,103	57,993	70,190	63,806	56,224	43,795	56,360	62,488
1975	17,377	17,604	24,193	29,775	39,710	51,059	61,798	56,177	49,501	38,559	49,621	55,016
1976	14,117	14,301	19,654	24,189	32,260	41,480	50,204	45,637	40,214	31,324	40,312	44,695
1977	14,261	14,448	19,856	24,437	32,591	41,905	50,719	46,105	40,627	31,646	40,725	45,153
1978	13,868	14,049	19,307	23,762	31,691	40,748	49,319	44,833	39,505	30,772	39,601	43,907
1979	12,133	12,292	16,892	20,790	27,727	35,651	43,150	39,225	34,564	26,923	34,648	38,415
1980	10,014	10,145	13,943	17,160	22,885	29,426	35,615	32,375	28,528	22,222	28,597	31,707
1981	11,793	11,947	16,418	20,207	26,949	34,651	41,939	38,124	33,594	26,168	33,675	37,337
1982	11,929	12,085	16,608	20,440	27,260	35,051	42,423	38,564	33,981	26,469	34,064	37,767
1983	8,450	8,560	11,764	14,479	19,310	24,829	30,051	27,318	24,072	18,750	24,130	26,753
1984	8,086	8,192	11,258	13,856	18,479	23,760	28,758	26,142	23,036	17,943	23,091	25,602
1985	6,558	6,644	9,131	11,237	14,987	19,270	23,323	21,201	18,682	14,552	18,727	20,764
1986	4,991	5,056	6,949	8,552	11,406	14,665	17,750	16,135	14,218	11,075	14,252	15,802
1987	4,073	4,126	5,670	6,979	9,307	11,967	14,484	13,167	11,602	9,037	11,630	12,895
1988	4,157	4,211	5,787	7,122	9,499	12,214	14,782	13,438	11,841	9,223	11,870	13,160
1989	3,312	3,355	4,611	5,675	7,569	9,732	11,779	10,707	9,435	7,349	9,458	10,486
1990	3,130	3,171	4,357	5,363	7,152	9,196	11,130	10,118	8,915	6,945	8,937	9,909
1991	2,635	2,669	3,668	4,515	6,021	7,742	9,370	8,518	7,506	5,846	7,524	8,342
1992	2,333	2,363	3,248	3,998	5,331	6,855	8,297	7,542	6,646	5,177	6,662	7,386
1993	2,086	2,113	2,904	3,574	4,767	6,129	7,418	6,743	5,942	4,629	5,957	6,604
1994		2,023	2,780	3,421	4,562	5,866	7,100	6,454	5,687	4,430	5,701	6,321
1995			2,294	2,824	3,766	4,842	5,860	5,327	4,694	3,656	4,706	5,217
1996				2,226	2,969	3,817	4,620	4,200	3,701	2,883	3,710	4,113
1997					2,252	2,895	3,504	3,185	2,807	2,186	2,813	3,119
1998						2,287	2,767	2,516	2,217	1,727	2,222	2,464
1999							2,226	2,023	1,783	1,389	1,787	1,982
2000								1,873	1,651	1,286	1,655	1,834
2001									1,959	1,526	1,964	2,177
2002									1	3.177	4.088	4.533
2003										- )- / /	4.088	4.532
2004											_,000	3.774
Year-end Value	190.483	194.996	270.276	334.866	448.850	579,415	703,507	641.388	567,133	444.939	576.682	643.157
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	It took 6 more years						Δ	notherb	ear marl	ot An		
to exceed \$200,000					200,000		thor buri	cal illafk	ct. All-			

to exceed \$200,000. year to surpass \$500,000.

other buying opportunity.

Failing to achieve S&P 500 returns is a common result when savers hold lower-returning investments (such as bank deposits, most bonds or over-hyped faddish investments) in an attempt to reduce the near-term volatility that is characteristic of S&P 500 performance, or when savers temporarily succumb to their fears and suspend saving (or sell) during bear markets. We hope you will carefully study these tables and see that short-term stock market volatility didn't adversely affect long-term investment performance. Instead, it produced great buying opportunities. Put differently, for the purpose of nest-egg formation, bear markets are not to be feared. (It is investors' reactions to bear markets that should be feared.) Rather, they should be welcomed—and exploited.

Year End:	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Worker's Age:	57	58	59	60	61	62	63	64	65	
Annual IRA Contribution:	4,500	5,000	5,000	6,000	6,000	6,000	6,000	6,000	6,500	
Cumulative Contributions:	69,000	74,000	79,000	85,000	91,000	97,000	103,000	109,000	115,500	
Annual S&P 500 Return:	4.91%	15.79%	5.49%	-37.00%	26.46%	15.06%	2.11%	16.00%	32.39%	
Year of Initial Contribution										
1973	51,295	59,397	62,662	39,480	49,922	57,436	58,652	68,025	90,071	The \$1,500
1974	65,544	75,896	80,068	50,447	63,789	73,390	74,944	86,921	115,091	Invested in
1975	57,708	66,822	70,495	44,415	56,162	64,615	65,984	76,529	101,330	market grew
1976	46,881	54,285	57,269	36,083	45,625	52,493	53,604	62,171	82,319	dramatically.
1977	47,362	54,842	57,856	36,453	46,093	53,031	54,154	62,809	83,164	
1978	46,054	53,328	56,259	35,446	44,821	51,567	52,659	61,075	80,868	
1979	40,294	46,658	49,222	31,013	39,215	45,117	46,073	53,436	70,753	
1980	33,257	38,510	40,627	25,597	32,367	37,239	38,027	44,104	58,398	
1981	39,163	45,348	47,841	30,142	38,114	43,851	44,780	51,936	68,767	
1982	39,615	45,871	48,393	30,490	38,554	44,357	45,296	52,535	69,561	
1983	28.062	32,494	34,280	21,598	27.311	31.421	32.087	37.214	49.275	
1984	26,854	31.096	32 805	20,669	26,135	30.069	30,706	35 613	47 155	
1985	21,779	25 219	26 605	16 763	21,196	24 386	24 903	28 882	38 243	
1986	16 575	19 193	20,009	12 757	16 131	18 559	18 952	21,002	29 104	
1987	13 526	15,662	16 523	10/10	13 163	15 1/15	15 / 65	17 937	23,750	
1987	12,904	15,002	16.962	10,410	12 / 2/	15 /56	15 79/	19 206	23,730	
1988	10,000	13,984	10,803	10,024	10,404	13,430	12,784	16,500	10.21/	
1989	10,999	12,/30	13,43/	ð,400 7.000	10,/05	12,310	12,5//	14,58/	19,514	
1990	10,393	12,035	12,69/	/,999	10,115	11,638	11,884	13,/83	18,250	
1991	8,/50	10,132	10,689	6,/34	8,515	9,/9/	10,005	11,603	15,364	
1992	/,/48	8,9/1	9,465	5,963	7,540	8,6/5	8,859	10,2/5	13,604	
1993	6,92/	8,021	8,462	5,332	6,/42	7,756	7,921	9,186	12,164	
1994	6,630	7,677	8,099	5,103	6,453	7,424	7,581	8,793	11,642	
1995	5,472	6,337	6,685	4,212	5,326	6,127	6,257	7,257	9,609	
1996	4,314	4,996	5,270	3,321	4,199	4,831	4,933	5,722	7,576	
1997	3,272	3,789	3,997	2,518	3,184	3,664	3,741	4,339	5,745	Investing dur-
1998	2,584	2,992	3,157	1,989	2,515	2,894	2,955	3,427	4,538	ing optimistic
1999	2,078	2,407	2,539	1,600	2,023	2,327	2,377	2,756	3,650	times (the
2000	1,924	2,228	2,351	1,481	1,873	2,154	2,200	2,552	3,379	Late 1990s)
2001	2,284	2,644	2,790	1,758	2,223	2,557	2,611	3,029	4,010	← led to <u>modest</u>
2002	4,754	5,505	5,808	3,659	4,627	5,324	5,436	6,305	8,348	returns.
2003	4,754	5,504	5,807	3,659	4,626	5,323	5,435	6,304	8,347	
2004	3,959	4,584	4,836	3,047	3,853	4,433	4,526	5,250	6,951	
2005	4,694	5,435	5,734	3,613	4,568	5,256	5,367	6,225	8,242	
2006		5,436	5,735	3,613	4,569	5,257	5,368	6,226	8,243	Investing dur-
2007			5,017	3,161	3,997	4,598	4,696	5,446	7,211	ing gloomy
2008				4,627	5,851	6,731	6,874	7,972	10,556	times (the
2009					7,249	8,340	8,517	9,878	13,079	<ul> <li>✓ financial</li> </ul>
2010						6,759	6,902	8,005	10,599	← crisis) led to
2011							5,966	6,919	9,162	much better
2012								6,245	8,269	returns.
2013									7,376	
Year-end Value	679,311	792,036	840,589	534,243	682,785	792,313	815,058	951,559	1,267,318	l

A big bear market, and a big buying opportunity.

<u>Note</u>: Do you think stocks are risky and bank deposits are not? If we had assumed T-Bill returns (comparable to bank deposits) instead of stock returns, the final 2013 value would have been far less. Smaller nest eggs increase the risk of outliving your money.