

C

Appendix C: Even More Figures

In This Chapter:

The Number of Vernal Graduates

Amount of Effort Directed toward Fundamental Progressive Change

Monetary Contributions of Additional Progressive Advocates

How Population Turnover Can Accelerate Change

This Appendix contains additional figures that show in greater detail how the Vernal Project might contribute to societal transformation. These figures mostly relate to items discussed in Chapters 7 and 9.

THE NUMBER OF VERNAL GRADUATES

Figure C.1 calculates the number of Vernal graduates who would be very active each year for the first thirty years of the Vernal Project. It uses the baseline assumptions about the rate that graduates would become less active from Figure 7.2 and the number of total sessions that would be facilitated each year from Figure B.13.

Each column tracks the Vernal students who would enroll in all the Vernal sessions that would begin in the year shown at the top of the column. The total number of students enrolled in that year is shown in italics as the first entry in each column. The entries in each row below shows

how many of the graduates from this year would still be very active in the year indicated at the left.

Moving down a column, the total number of very active graduates of Vernal sessions held in that year decreases until every graduate becomes less active. The sum across each row is then the total number of Vernal graduates from all sessions who would be very active in that year. This total is shown at the right side of the Figure.

Figure C.2 calculates the same numbers for the optimistic scenario.

Figure C.3 summarizes these counts for all sixty years of the Vernal Project and the ten years after it ends. This figure shows the number of Vernal students, very active graduates, and less active graduates for both the baseline and optimistic scenarios.*

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* Note that the number of less active graduates shown in Figure C.3 is somewhat smaller than the values shown in Figures C.1 and C.2. In Figure C.3, I have assumed that Vernal graduates eventually either drift away from fundamental progressive change or grow old and die. To model this process, I have used a stepped schedule that roughly follows a Normal curve with a mean of twenty-five years and a standard deviation of seven years. One year after graduating, I assume that 0.1% of the graduates would no longer be doing any kind of work for fundamental progressive change. Seven years after graduating, I assume that another 1.5% would stop, thirteen years after graduating, I assume another 8.3% would stop, nineteen years after graduating, I assume another 23.5% would stop, and so on according to the schedule shown at the bottom of the figure. According to this schedule, forty-nine years after graduating from a Vernal session, all of the graduates would have drifted away or died.

Figure C.1: Very Active Graduates in Each

Vern Year	Year that Session Begins																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Number of Vernal Sessions Beginning in this Year																			
	1	1	2	3	4	5	6	8	13	21	29	37	48	65	85	105	128	154	178	194
1	<i>30</i>																			
2	<i>26</i>	<i>30</i>																		
3	<i>22</i>	<i>26</i>	<i>60</i>																	
4	<i>19</i>	<i>22</i>	<i>52</i>	<i>90</i>																
5	<i>16</i>	<i>19</i>	<i>44</i>	<i>78</i>	<i>120</i>															
6	<i>13</i>	<i>16</i>	<i>38</i>	<i>66</i>	<i>104</i>	<i>150</i>														
7	<i>11</i>	<i>13</i>	<i>32</i>	<i>57</i>	<i>88</i>	<i>130</i>	<i>180</i>													
8	<i>9</i>	<i>11</i>	<i>26</i>	<i>48</i>	<i>76</i>	<i>110</i>	<i>156</i>	<i>240</i>												
9	<i>7</i>	<i>9</i>	<i>22</i>	<i>39</i>	<i>64</i>	<i>95</i>	<i>132</i>	<i>208</i>	<i>390</i>											
10	<i>2</i>	<i>7</i>	<i>18</i>	<i>33</i>	<i>52</i>	<i>80</i>	<i>114</i>	<i>176</i>	<i>338</i>	<i>630</i>										
11	<i>0</i>	<i>2</i>	<i>14</i>	<i>27</i>	<i>44</i>	<i>65</i>	<i>96</i>	<i>152</i>	<i>286</i>	<i>546</i>	<i>870</i>									
12	<i>0</i>	<i>0</i>	<i>4</i>	<i>21</i>	<i>36</i>	<i>55</i>	<i>78</i>	<i>128</i>	<i>247</i>	<i>462</i>	<i>754</i>	<i>1,110</i>								
13	<i>0</i>	<i>0</i>	<i>0</i>	<i>6</i>	<i>28</i>	<i>45</i>	<i>66</i>	<i>104</i>	<i>208</i>	<i>399</i>	<i>638</i>	<i>962</i>	<i>1,440</i>							
14	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>8</i>	<i>35</i>	<i>54</i>	<i>88</i>	<i>169</i>	<i>336</i>	<i>551</i>	<i>814</i>	<i>1,248</i>	<i>1,950</i>						
15	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>10</i>	<i>42</i>	<i>72</i>	<i>143</i>	<i>273</i>	<i>464</i>	<i>703</i>	<i>1,056</i>	<i>1,690</i>	<i>2,550</i>					
16		<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>12</i>	<i>56</i>	<i>117</i>	<i>231</i>	<i>377</i>	<i>592</i>	<i>912</i>	<i>1,430</i>	<i>2,210</i>	<i>3,150</i>				
17			<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>16</i>	<i>91</i>	<i>189</i>	<i>319</i>	<i>481</i>	<i>768</i>	<i>1,235</i>	<i>1,870</i>	<i>2,730</i>	<i>3,840</i>			
18				<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>26</i>	<i>147</i>	<i>261</i>	<i>407</i>	<i>624</i>	<i>1,040</i>	<i>1,615</i>	<i>2,310</i>	<i>3,328</i>	<i>4,620</i>		
19					<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>42</i>	<i>203</i>	<i>333</i>	<i>528</i>	<i>845</i>	<i>1,360</i>	<i>1,995</i>	<i>2,816</i>	<i>4,004</i>	<i>5,340</i>	
20						<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>58</i>	<i>259</i>	<i>432</i>	<i>715</i>	<i>1,105</i>	<i>1,680</i>	<i>2,432</i>	<i>3,388</i>	<i>4,628</i>	<i>5,820</i>
21							<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>74</i>	<i>336</i>	<i>585</i>	<i>935</i>	<i>1,365</i>	<i>2,048</i>	<i>2,926</i>	<i>3,916</i>	<i>5,044</i>
22								<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>96</i>	<i>455</i>	<i>765</i>	<i>1,155</i>	<i>1,664</i>	<i>2,464</i>	<i>3,382</i>	<i>4,268</i>
23									<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>130</i>	<i>595</i>	<i>945</i>	<i>1,408</i>	<i>2,002</i>	<i>2,848</i>	<i>3,686</i>
24										<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>170</i>	<i>735</i>	<i>1,152</i>	<i>1,694</i>	<i>2,314</i>	<i>3,104</i>
25											<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>210</i>	<i>896</i>	<i>1,386</i>	<i>1,958</i>	<i>2,522</i>
26												<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>256</i>	<i>1,078</i>	<i>1,602</i>	<i>2,134</i>
27													<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>308</i>	<i>1,246</i>	<i>1,746</i>
28														<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>356</i>	<i>1,358</i>
29															<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>388</i>
30																<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
31																	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

Notes:

Numbers in each column represent the number of Vernal graduates who would attend a Vernal session in the year shown in the top row who would continue to remain very active in the year shown in the column to the left.

Each row represents the number of Vernal graduates from all years who would be very active in the year shown in the first column.

The number of enrolled Vernal students is shown in italics.

Figure C.2: Very Active Graduates in Each

Note: To conserve space, this figure is not printed here. It can be found at <http://www.vernalproject.org>.

Year, All Regions — Baseline Scenario

21	22	23	24	25	26	27	28	29	30	31	Number of Students	Num. of Very Act Grads	Num. of Less Act Grads	Total	Sessions Begun to Date
200	200	200	200	200	200	200	200	200	200	200	30	0	0	30	1
											30	26	4	60	2
											60	48	12	120	4
											90	93	27	210	7
											120	157	53	330	11
											150	237	93	480	16
											180	331	149	660	22
											240	436	224	900	30
											390	576	324	1,290	43
											630	820	470	1,920	64
											870	1,232	688	2,790	93
											1,110	1,785	1,005	3,900	130
											1,440	2,456	1,444	5,340	178
											1,950	3,303	2,037	7,290	243
											2,550	4,453	2,837	9,840	328
											3,150	5,937	3,903	12,990	433
											3,840	7,699	5,291	16,830	561
											4,620	9,758	7,072	21,450	715
											5,340	12,126	9,324	26,790	893
											5,820	14,697	12,093	32,610	1,087
6,000											6,000	17,229	15,381	38,610	1,287
5,200	6,000										6,000	19,449	19,161	44,610	1,487
4,400	5,200	6,000									6,000	21,214	23,396	50,610	1,687
3,800	4,400	5,200	6,000								6,000	22,569	28,041	56,610	1,887
3,200	3,800	4,400	5,200	6,000							6,000	23,572	33,038	62,610	2,087
2,600	3,200	3,800	4,400	5,200	6,000						6,000	24,270	38,340	68,610	2,287
2,200	2,600	3,200	3,800	4,400	5,200	6,000					6,000	24,700	43,910	74,610	2,487
1,800	2,200	2,600	3,200	3,800	4,400	5,200	6,000				6,000	24,914	49,696	80,610	2,687
1,400	1,800	2,200	2,600	3,200	3,800	4,400	5,200	6,000			6,000	24,988	55,622	86,610	2,887
400	1,400	1,800	2,200	2,600	3,200	3,800	4,400	5,200	6,000		6,000	25,000	61,610	92,610	3,087
0	400	1,400	1,800	2,200	2,600	3,200	3,800	4,400	5,200	6,000	6,000	25,000	67,580	98,580	3,287

Year, All Regions — Optimistic Scenario

Figure C.3: Summary of the Number of Vernal Activists

Phase	Vernal Year	Total Students and Graduates	Baseline Scenario			Optimistic Scenario		
			Number of Students	Number of Very Active Graduates	Number of Less Active Graduates	Number of Students	Number of Very Active Graduates	Number of Less Active Graduates
1	1	30	30	0	0	30	0	0
	2	60	30	26	4	30	28	2
	3	120	60	48	12	60	55	5
	4	210	90	93	27	90	109	11
	5	330	120	157	53	120	189	21
2	6	480	150	237	93	150	293	37
	7	660	180	331	149	180	421	59
	8	900	240	436	224	240	571	89
	9	1,289	390	576	323	390	770	129
	10	1,918	630	820	468	630	1,091	197
	11	2,787	870	1,232	685	870	1,621	296
	12	3,895	1,110	1,785	1,000	1,110	2,343	442
	13	5,332	1,440	2,456	1,436	1,440	3,247	645
	14	7,279	1,950	3,303	2,026	1,950	4,406	923
	15	9,822	2,550	4,453	2,819	2,550	5,973	1,299
	16	12,964	3,150	5,937	3,877	3,150	8,014	1,800
	17	16,791	3,840	7,699	5,252	3,840	10,502	2,449
	18	21,391	4,620	9,758	7,013	4,620	13,469	3,302
	19	26,704	5,340	12,126	9,238	5,340	16,940	4,424
	20	32,490	5,820	14,697	11,973	5,820	20,824	5,846
3	21	38,441	6,000	17,229	15,212	6,000	24,868	7,573
	22	44,379	6,000	19,449	18,930	6,000	28,744	9,635
	23	50,289	6,000	21,214	23,075	6,000	32,218	12,071
	24	56,162	6,000	22,569	27,593	6,000	35,255	14,907
	25	61,998	6,000	23,572	32,426	6,000	37,853	18,145
	26	67,795	6,000	24,270	37,525	6,000	39,994	21,801
	27	73,537	6,000	24,700	42,837	6,000	41,659	25,878
	28	79,216	6,000	24,914	48,302	6,000	42,865	30,351
	29	84,797	6,000	24,988	53,809	6,000	43,685	35,112
	30	90,261	6,000	25,000	59,261	6,000	44,230	40,031
	31	95,602	6,000	25,000	64,602	6,000	44,594	45,008
	32	100,812	6,000	25,000	69,812	6,000	44,818	49,994
	33	105,868	6,000	25,000	74,868	6,000	44,938	54,930
	34	110,744	6,000	25,000	79,744	6,000	44,988	59,756
	35	115,407	6,000	25,000	84,407	6,000	45,000	64,407
	36	119,842	6,000	25,000	88,842	6,000	45,000	68,842
	37	124,029	6,000	25,000	93,029	6,000	45,000	73,029
	38	127,945	6,000	25,000	96,945	6,000	45,000	76,945
	39	131,573	6,000	25,000	100,573	6,000	45,000	80,573
	40	134,905	6,000	25,000	103,905	6,000	45,000	83,905
	41	137,958	6,000	25,000	106,958	6,000	45,000	86,958
	42	140,753	6,000	25,000	109,753	6,000	45,000	89,753
	43	143,260	6,000	25,000	112,260	6,000	45,000	92,260
	44	145,449	6,000	25,000	114,449	6,000	45,000	94,449
	45	147,318	6,000	25,000	116,318	6,000	45,000	96,318
	46	148,903	6,000	25,000	117,903	6,000	45,000	97,903
	47	150,274	6,000	25,000	119,274	6,000	45,000	99,274
	48	151,485	6,000	25,000	120,485	6,000	45,000	100,485
	49	152,512	6,000	25,000	121,512	6,000	45,000	101,512
	50	153,336	6,000	25,000	122,336	6,000	45,000	102,336

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Figure C.3 (continued)

Phase	Vernal Year	Total Students and Graduates	Baseline Scenario			Optimistic Scenario		
			Number of Students	Number of Very Active Graduates	Number of Less Active Graduates	Number of Students	Number of Very Active Graduates	Number of Less Active Graduates
3 (cont.)	51	153,963	6,000	25,000	122,963	6,000	45,000	102,963
	52	154,434	6,000	25,000	123,434	6,000	45,000	103,434
	53	154,810	6,000	25,000	123,810	6,000	45,000	103,810
	54	155,133	6,000	25,000	124,133	6,000	45,000	104,133
	55	155,395	6,000	25,000	124,395	6,000	45,000	104,395
	56	155,589	6,000	25,000	124,589	6,000	45,000	104,589
	57	155,718	6,000	25,000	124,718	6,000	45,000	104,718
	58	155,800	6,000	25,000	124,800	6,000	45,000	104,800
	59	155,857	6,000	25,000	124,857	6,000	45,000	104,857
	60	155,905	6,000	25,000	124,905	6,000	45,000	104,905
End	61	149,943	0	25,000	124,943	0	45,000	104,943
	62	143,968	0	19,800	124,168	0	39,400	104,568
	63	137,989	0	15,400	122,589	0	34,000	103,989
	64	132,001	0	11,600	120,401	0	28,800	103,201
	65	126,011	0	8,400	117,611	0	23,800	102,211
	66	120,020	0	5,800	114,220	0	19,200	100,820
	67	114,028	0	3,600	110,428	0	14,800	99,228
	68	108,035	0	1,800	106,235	0	10,600	97,435
	69	102,132	0	400	101,732	0	6,600	95,532
	70	96,228	0	0	96,228	0	4,600	91,628
Total in								
Phase 1 (Year 1 - 5)			330			330		
Phase 2 (Year 6 - 20)			32,280			32,280		
Phase 3 (Year 21 - 60)			240,000			240,000		
Whole Project (1 - 60)			272,610			272,610		
Main Struggle (31 - 60)			180,000			180,000		
Average in								
Phase 1 (Year 1 - 5)			66	65	19	66	76	8
Phase 2 (Year 6 - 20)			2,152	4,390	3,105	2,152	6,032	1,462
Phase 3 (Year 21 - 60)			6,000	24,448	90,489	6,000	43,018	71,919
Whole Project (1 - 60)			4,544	17,401	61,104	4,544	30,193	48,312
Main Struggle (31 - 60)			6,000	25,000	108,686	6,000	44,978	88,708

Assumptions:

Assume all Vernal graduates die or drift away from fundamental progressive social change (and are therefore no longer included in any of these categories) according to the stepped schedule below. This schedule roughly corresponds to a Normal curve with a mean of twenty-five years and a standard deviation of seven years.

Years After Graduating	Percent Who Die or Drift Away
1	0.1 %
7	1.5 %
13	8.3 %
19	23.5 %
25	33.2 %
31	23.5 %
37	8.3 %
43	1.5 %
49	0.1 %
	100.0 %

In the baseline scenario, the number of very active graduates would rise to 25,000 by Vernal Year 30 and would remain at that same level until the Project ended. In the optimistic scenario, the number of very active graduates would rise to 45,000 in Vernal Year 35 and would remain constant until the end of the Project.

In the baseline scenario, during Phase 3 of the Vernal Project (Years 21 to 60), there would be an average of 6,000 Vernal students, 24,448 very active graduates, and 90,489 less active graduates. In the optimistic scenario, more of the graduates would be very active (43,018) and fewer would be less active (71,919).

AMOUNT OF EFFORT DIRECTED TOWARD FUNDAMENTAL PROGRESSIVE CHANGE

How many people now work for progressive change and how much work do they do? How much of their effort moves society towards fundamental transformation? How much additional work might Vernal activists contribute to fundamental progressive change?

Estimating these quantities is extremely difficult. There is no way to define specifically what constitutes fundamental progressive change work, and there is no way to determine how many people now spend time doing this work. Speculating how these values would change in the future is even more difficult.

However, to ensure that the Vernal Project would be worthwhile, I have done my best to define some categories and to make some rough estimates of total change effort. First, I estimate how many people are really progressive social change activists. Then I estimate how many of these activists are working for fundamental progressive change.¹

Current Efforts

Most people in our society are goodhearted and compassionately help their neighbors and friends. Their civility and kindness lifts society up and makes life bearable. But typically their efforts are narrowly restricted to their family and close personal friends. Their generosity does not extend to strangers or even to acquaintances.

Only a portion of the population is concerned about the world as a whole and desires a better life for everyone. I estimate that only about one-fourth of the U.S. population (perhaps fifty million adults) consider themselves progressive in this way. Moreover, many of these people, though well intentioned, actually do little work to create a better society. They may identify with progressive ideals and sympathize with progressive causes, but they do not make any effort to bring about change.

Those who actually do the bulk of the work of making the world a better place include enlightened parents, progressive childcare workers, progressive teachers, social work-

ers, benevolent clergypeople, employees of progressive non-profit agencies, benevolent doctors and nurses, progressive labor unionists, enlightened businesspeople, and liberal legislators. But much of their socially oriented effort typically fits in the category of social *service* work: teaching skills, repairing damage to the natural environment, and assisting those who need help — children, uneducated adults, the aged, poor people, disabled people, and those afflicted with illness or emotional problems.

Social service work is, of course, absolutely essential in a good society. It helps the recipients of the aid to have better lives, encourages the givers of aid to be more open to living and working with other people, and generally makes society more civil. However, social service work typically does not address situations in which our current societal structures injure, stymie, or retard people. This work does not challenge the power structure or alter oppressive institutions. It does not demand democracy or justice. It does not embolden people to resist oppression or defy the elite. It helps people only as much as the current political, economic, cultural, and social structures allow. So typically, only a small portion of the benevolent work these concerned people perform really brings about progressive *change*.

And unfortunately, of the actual progressive change work people do perform, a significant portion is typically channeled into shallow reform measures or into measures that help one oppressed group at the expense of another. For example, activists advocating on behalf of the poor, when confronted by obstinate legislators, may accept a deal in which funds that were previously earmarked for children's programs would instead be steered to job training. Because of this shift of funds, one oppressed group (poor people) would benefit, but another oppressed group (children) would suffer. The political system that imposed this ugly tradeoff would remain untouched. Considering that these kinds of deals are quite common, only a small percentage of change work really gets to the roots of problems and *fundamentally* restructures basic political, economic, social, or cultural institutions.

Even social change organizations dedicated to fundamental progressive change spend a great deal of their time convincing and cajoling their supporters to donate money to their organization rather than actually working for change. This effort is absolutely essential to ensure the continued existence of these important organizations, but it is not social change work.

Furthermore, many people who do some progressive work also support anti-progressive measures out of ignorance or necessity. For example, when war fever is rampant, many progressive activists accept — and sometimes actively support — military intervention. Also, when faced with a choice between furthering the common good and increasing their own personal gain, many activists opt for their own

Sorry, we are too busy mopping the floor to turn off the faucet.
— Office Graffiti

Figure C.4: Estimate of the Number of Activists Working for Fundamental Progressive Change, Now and in Vernal Phase 3

	Hours of Work per Week		Now			Vernal Project Phase 3 (Vernal Project Year 40)			Ratio Phase 3 / Now	
	Range	Avg.	Number of People	Total Hours Per Week of Work	% of Hrs Contribtd by this Group	Number of People	Total Hours Per Week Of Work	% of Hrs Contribtd by this Group	Num.	Hrs
Very Active Vernal Grads	36 – 45	40				5,000	200,000	5.2 %		
	25 – 35	30				5,000	150,000	3.9 %		
	20 – 24	22				15,000	330,000	8.5 %		
Total						25,000	680,000	17.6 %	∞	∞
Other Steadfast Activists*	36 – 60	45	5,000	225,000	21.2 %	15,000	675,000	17.5 %	3.0	3.0
	15 – 35	25	8,000	200,000	18.9 %	24,000	600,000	15.5 %	3.0	3.0
	8 – 14	10	10,000	100,000	9.4 %	30,000	300,000	7.8 %	3.0	3.0
	3 – 7	5	27,000	135,000	12.7 %	81,000	405,000	10.5 %	3.0	3.0
Total			50,000	660,000	62.3 %	150,000	1,980,000	51.3 %	3.0	3.0
Progressive Advocates*	1.5 – 2.9	2	100,000	200,000	18.9 %	300,000	600,000	15.5 %	3.0	3.0
	0.2 – 1.4	1	200,000	200,000	18.9 %	600,000	600,000	15.5 %	3.0	3.0
Total			300,000	400,000	37.7 %	900,000	1,200,000	31.1 %	3.0	3.0
Grand Total			350,000	1,060,000	100.0 %	1,075,000	3,860,000	100.0 %	3.1	3.6

Notes:

- (1) Activists working for fundamental progressive change include social workers, clergy people, labor activists, and others.
- (2) The part-time figures include the time that full-time activists spend working for fundamental progressive change. Few full-time activists can work full-time for fundamental progressive change — even those who mostly adhere to progressive ideals usually spend some of their time doing fundraising or working on moderate reforms.
- (3) By the middle of Vernal Phase 3 (Vernal Year 40), I assume there would be enough additional money available to pay 15,000 more activists to work full-time for fundamental change. Here, I assume that 5,000 of these full-time activists would be very active Vernal graduates and 10,000 would be other steadfast activists

* Note: Many of the steadfast activists and progressive advocates would likely be Vernal students or less active graduates.

benefit. And just to live their lives, progressive activists must engage in some anti-progressive behavior.*

Overall, based on my experience and research, I estimate that only about 350,000 people (about one-sixth of one percent of adults in the United States) do a substantial amount of work (more than a few hours each year) for fundamental progressive change. This represents an average of

about 800 people in each Congressional District.† Of this number, I estimate only 50,000 steadfast activists work three or more hours each week for fundamental progressive transformation — an average of 115 per Congressional District.

The left-hand side of Figure C.4 shows my specific estimates of the number of activists who now work a particular number of hours each week for fundamental change. For example, the fifth row in the table specifies that 5,000 activists (an average of eleven in each Congressional District) now work between 36 and 60 hours each week. Assuming

* All of us who work for fundamental progressive change inadvertently support the status quo in various ways. We buy products from obnoxious companies, we pay rent to reactionary landlords, we pollute the environment with our cars, we vote for moderate politicians who have a chance of winning instead of more progressive candidates who cannot, and so on. Our progressive efforts are therefore offset to some extent by our anti-progressive efforts.

† Right now, of course, some CDs exceed the average and have many times this number of people working for fundamental progressive change while others have only a small fraction of this number.

they average 45 hours per week, I estimate these 5,000 activists currently perform about 225,000 hours of fundamental progressive change work each week. Altogether, I assume that the 350,000 activists working for progressive change perform about one million hours of work each week directed toward fundamental progressive transformation.

Supplemental Gain Provided by Vernal Activists

If implemented as described in this book, the Vernal Project should increase this number severalfold. As shown in the right-hand side of Figure C.4, I assume that by the middle of Vernal Project Phase 3 (Vernal Year 40), there would be 25,000 very active Vernal graduates working at least twenty hours per week for progressive change. I assume 15,000 would work 20 to 24 hours per week for fundamental change and 10,000 would work significantly more than that — some as many as 45 hours per week.* At these levels of effort, very active Vernal graduates would contribute an additional 680,000 hours per week toward fundamental social change.

With the strong support of these very active Vernal graduates and the general upsurge of various progressive social change movements they would help generate, I assume that more people would feel comfortable joining progressive change organizations. Vernal graduates would probably be able to convince their activist colleagues to spend more of their change effort working for truly fundamental transformation of society. Also, more people would likely contribute money to progressive change organizations, enabling more activists to be hired to work for change (see the next section). With all this support and encouragement, and supplemented with 6,000 Vernal students and around 100,000 less active graduates, I assume that the number of steadfast activists working three or more hours each week for fundamental change would triple from 50,000 to 150,000 and the number of progressive advocates working a few hours per week would triple from 300,000 to 900,000.†

In all, I estimate there would be about 3.1 times as many activists working for fundamental change in Vernal Year 40 as now (more than a million altogether), and they would work about 3.8 million hours each week — about 3.6 times as many as now. Since Vernal graduates would be quite knowledgeable, skilled, and experienced and they would do their best to pass their expertise on to those with whom they worked, I expect activists in this year would be significantly more effective than progressive activists today. I estimate the overall effort to bring about fundamental progressive trans-

* I assume, to avoid burnout, Vernal graduates would work no more than 45 hours per week for change.

† As shown in Figure C.3, I estimate there would be 6,000 Vernal students and about 104,000 less active graduates in Vernal Year 40 (a total of 110,000). So I assume in this year that about 15% of the estimated 150,000 steadfast activists (22,500) and 10% of the 900,000 progressive advocates (90,000) would be Vernal students or less active graduates.

Figure C.5: Estimate of Monetary Contributions Made by Additional Progressive Advocates in Vernal Year 40

Average Donation Amount/Year (\$)	Number of Additional Progressive Advocates	Total Donation Amount/Year (\$ million)
2,500	50,000	125
1,000	250,000	250
500	200,000	100
100	100,000	10
Total	600,000	485

Number of full-time activists this could support at \$32,000/year (for salary + benefits) =

Nationwide	15,156
Per Congressional District (CD)	34

Note: All figures are in 1995 dollars.

formation of society would be three or four times more powerful than it is now.‡

MONETARY CONTRIBUTIONS OF ADDITIONAL PROGRESSIVE ADVOCATES

If my estimates are accurate, in Vernal Year 40 there would be 600,000 more progressive advocates than there are now. I assume most of these additional advocates would be very supportive of fundamental progressive change work. They would probably want to work more for change than they do but would be restricted to just a few hours each week by their jobs or their childrearing responsibilities. However, since many of these advocates would have conventional jobs or would be married to someone with a conventional job, they would probably be wealthy enough to contribute a few hundred or even a few thousand dollars each year towards support of fundamental progressive change work.§

‡ All the factors contributing to this estimate are highly uncertain. Therefore, this estimate is necessarily also extremely rough. I can imagine that even if the Vernal Project proceeded exactly as described here, the effort to bring about fundamental progressive change in Vernal Year 40 might be only twice as powerful as now or it might be as much as ten times as powerful.

§ The 100,000 additional steadfast activists in Vernal Year 40 might also contribute additional money towards fundamental change. But here, to be conservative, I have assumed that they are all relatively poor and devote all their resources to supporting themselves.

In Figure C.5, I have made estimates of the amount of money that these additional advocates might contribute. I assume that 50,000 of them would be wealthy enough to contribute an average of \$2,500 each year (in 1995 dollars). I assume the rest would contribute a smaller amount. Together, I assume they would contribute about \$485 million each year. This would be enough to support more than 15,000 additional full-time activists — the same number of additional full-time activists I assumed in Figure C.4 (5,000 more full-time very active Vernal graduates and 10,000 more full-time steadfast activists).

HOW POPULATION TURNOVER CAN ACCELERATE CHANGE

Progressive social change movements that continue at a high level for decades can bring about much more change than movements that arise and then fade after just a few years. Not only are more people eventually exposed to progressive ideas, but people are also more likely to be immersed steadily in progressive values over a long period and to consistently interact with progressive institutions. This makes them much more likely to change their perspective and their activities. Once people have adopted progressive values and are living in a stable, on-going positive environment, they seldom voluntarily return to their previous hurtful ideas or switch back to oppressive conventional institutions. Furthermore, once convinced of the value of progressive alternatives, they are usually strong and consistent promoters of fundamental progressive change. So a powerful effort for fundamental progressive change, if sustained long enough, will eventually transform all of society. The natural course of population turnover can greatly accelerate this transformation process.

Over a hundred year period, the population of society turns over completely: all those alive at the beginning of the period die sometime within one hundred years, and they are supplanted by their children, grandchildren, and great-grandchildren. A completely new set of people then constitutes society. If the new generation decides to adopt entirely different norms or institutions, no one from the previous era is still around to stop them. Clearly, societal traditions and institutions endure for centuries only because young people accept and adopt the same ones as their elders.

This situation changes in a period of social upheaval and change. During the forty years of Vernal Project Phase 3, when more than a million progressive activists would be vigorously working for social change, about half of the U.S. population would die and would be replaced by the next generation. If, during this period, progressive social change movements were effective in widely raising issues and offering progressive alternatives, many young people would be exposed to and adopt alternative ideas and practices as part of their normal childhood rearing. There would be no need

to erase hurtful ideas like racism, sexism, homophobia, or self-hatred from their minds since they would never have had these ideas inculcated into them in the first place. There would be no need to persuade them of the value of progressive alternatives since they would see the advantages as they used these institutions in their everyday lives.

Today, children accept as normal such things as jet aircraft, television, computers, credit cards, fast food outlets, the military, massive corporations, mind-altering drugs, gangs, competition, and widespread poverty. In the same way, children raised in a transforming society would likely embrace honesty, cooperative businesses, co-housing, consensus decision-making, and nonviolent struggle, and prejudice, child abuse, extortion, and all other forms of oppression would repel them. Young people would easily adopt progressive alternatives without any explicit encouragement from progressive activists.

Population Turnover

Figure C.6 shows a typical distribution of the relative number of people in the United States in each ten-year age cohort. Since people die from accidents and disease as they grow older, each age group has a smaller number of people than the previous one. The number of children under age 10 (about 13.2 percent of the population) is more than three times as large as those in their 80s (about 4.1 percent of the population). Those in their 90s constitute less than 1 percent of the population and only a handful of people are older than 100. To simplify the analysis below, I have assumed that this age distribution remains the same over the next century.

Figure C.6: Typical Population in Each Ten-Year Age Cohort

Age Cohort	Percent of Population
00s	13.2 %
10s	13.2
20s	13.0
30s	12.9
40s	12.5
50s	11.9
60s	10.5
70s	7.8
80s	4.1
90s	0.9
Total	100.0

General Effect of Progressive Movements

When Vernal-supported progressive social movements first begin to grow in size and strength, probably only the activists' closest family members and friends would be exposed to the new ideas. And only a subset of those people — those who were most open to progressive ideas — would change their perspectives very much. Over time, though, more people would be exposed to progressive ideas and more would change their perspectives. As an ever-larger number of people were surrounded by other people who held progressive perspectives and who treated them with love and compassion, change would accelerate.

Children are particularly open to change. Since humans are born ignorant of the world, they must learn almost everything. So children learn constantly as they grow up. They learn from their environment, from their elders, from their peers, and from their teachers in school. As a result, children are more likely to hear new ideas than older people, and they are usually more open to adopting new ideas.

Consequently, they are more likely to be affected by massive progressive change movements.

When the children who were exposed to progressive ideas in the early years of the Vernal Project grew up and started families, many would try to relate to their own children in ways consistent with progressive ideals. They would treat their children with love and support, they would protect them from abuse, they would teach them positive ideas, and they would expose them to progressive institutions. As the number of progressive young adults rose over time, the proportion of children raised in loving, supportive families would go up, and the proportion subjected to abuse and mind-numbing oppression would go down. As these children then grew up, there would be even more adults able to think clearly and they would be even more likely to treat other people well. Fewer would be dysfunctional, anti-social, or filled with rage.

Over time, dysfunctional adults and those with rigid, conservative ideas would retire and die, while capable young people with positive perspectives would gain in number and influence. As progressives assumed greater control of soci-

Figure C.7: Three Categories of People Based on the Amount that They are Affected by Progressive Social Change Movements

	Hardly Affected	Moderately Affected	Strongly Affected
Understanding of how society affects people	Little or no understanding of how society shapes perspectives, how emotional and cultural conditioning constricts behavior, and how societal institutions steer lives	Some understanding of society's influence	Deep and clear understanding of society's influence
Awareness and acceptance of progressive change groups, activities, and ideas	Unaware; or aware, but feel unconnected and view progressives with disinterest, suspicion, or hostility; or aware, mildly interested, and somewhat accepting	Connected to progressive ideas and activity; aware of many progressive perspectives and find them mostly persuasive	Deeply connected to progressive ideas and activity; aware of progressive perspectives and find them very persuasive; understand and support nonviolent social change methods
Desire for progressive change	Little or no desire for progressive change	Some desire	Strong desire
Efforts for progressive change	Generally, little or no effort (though usually some effort to act ethically); firmly entrenched in conventional institutions and cultural norms	Moderate efforts to act ethically, teach children progressive ideas, vote for liberal or progressive candidates for political office, contribute small amounts of money to progressive causes, and patronize alternative institutions	Strong, active, and consistent efforts to overcome dysfunctional conditioning and emotional blocks, to live according to progressive ideals, to teach children progressive ideas, to vote for progressive politicians, to support alternative institutions, to boycott destructive enterprises, and to contribute to progressive change organizations; also some effort to campaign for progressive politicians, lobby legislators, speak out, circulate petitions, attend hearings, attend rallies, and so on *
Self-label	Conservative, moderate, or liberal	Liberal or progressive	Strong progressive

* Note: I assume that even at the peak of activity at the end of Phase 3 of the Vernal Project, only about a million people (0.5 percent of the adult population) would be devoting a substantial amount of effort (one hour per week or more) toward fundamental progressive change.

ety's institutions, even more people would be exposed to alternative ideas and there would be less resistance to progressive change. Change would then accelerate even more. Every year, more of the people who were born before this period of widespread progressive movements would retire and die. By Vernal Year 100, almost all of them would have died.

Specific Numbers

Figure C.8 is an attempt to quantify this general understanding and analyze the extent to which population turnover might actually assist Vernal-supported progressive movements. For the purpose of this analysis, I have grouped people into three categories according to how much they would be affected by progressive change movements: strongly, moderately, and hardly at all. Figure C.7 describes these three categories.

In the time before Vernal Project Year 1, I assume that most people would be in the hardly-affected category. Though progressive movements have strongly affected many people over the last hundred years, poverty, war, institutional indoctrination, domestic violence, and conservative counter-movements have also strongly affected people and neutralized or undone much of the effect. As I write this, progressive movements are quite small and have limited influence. In this analysis, I assume that all progressive movements in the time before Vernal Year 1 have strongly affected only about 1 percent of the population and moderately affected about 5 percent. I assume most people (94 percent) are in the hardly-affected category. I further assume that all age cohorts have been affected to about the same degree.

For the first dozen years of the Vernal Project, I assume the Project would have minimal impact and progressive movements would have about the same limited influence they do now. However, by Vernal Project Year 15, large numbers of Vernal graduates would be actively working to support progressive movements. With this support, progressive movements would begin to grow rapidly and become highly visible and powerful. By the beginning of Vernal Phase 3 in Year 20, these movements would begin to significantly affect society. By Year 40, with twenty years of powerful and sustained effort, I assume progressive movements would have a profound effect on society, probably having at least as much impact as the progressive movements of the 1960s and 1970s. By the end of the Vernal Project in Year 60, after an unprecedented period of forty continuous years of powerful, sustained effort, I assume that progressive movements would have deeply affected all aspects of society.

Influence on Various Age Cohorts

Those people who were oldest in Vernal Project Year 1 would likely be most set in their ways and therefore least

likely to be influenced by these progressive movements. Moreover, many of them would die before they ever talked with a progressive activist or had time to change in any way. Most people in this age group would therefore remain in the hardly-affected category for their entire lives.

Teenagers and small children in Vernal Year 1 would be more likely to be influenced since they would grow up during the first part of this period of change and would be affected throughout their lives. They would have time to absorb the ideas, change their perspectives, work through their emotional and cultural conditioning, and change their behavior. Those who were not born until Vernal Year 20 or later would be affected even more, especially since their parents might have already been influenced before they were born — some might be strongly affected by their parents beginning when they are toddlers. Even more of these later generations would be affected as they moved into their teen years and were exposed to ideas in school and from the news media. Consequently, a much larger proportion of young people would be affected than of older people. As time passed, those born later, and influenced more, would constitute an ever larger proportion of society.

I have quantified these tendencies in columns 11 to 22 of Figure C.8 using specific values that seem reasonable.* For example, consider those who would be 20 to 29 years old in Vernal Project Year 1 (the lower of the two shaded rows in the figure). I have assumed that by Vernal Year 21 when they were in their forties and constituted 12.5 percent of the total population, only 1 percent would be strongly affected by progressive movements, 5 percent would be moderately affected, and 94 percent would be hardly affected — the same values as if the Vernal Project did not exist.

Only later, after twenty years of powerful progressive change movement activity supported by Vernal activists, would they be affected to any degree, and they would still be only minimally affected. In Vernal Year 41 when they were in their sixties and constituted 10.5 percent of the total population, I assume just 12 percent of them would be strongly affected. I assume 32 percent would be moderately affected, and 56 percent would be hardly affected. By Vernal Year 61 when they were in their eighties and constituted only 4.1 percent of the total population, I assume that 25 percent would be strongly affected, 51 percent moderately affected, and 24 percent would still be hardly affected. By Vernal Year 81, virtually all of these people would have died — those few still alive would be more than 100 years old.

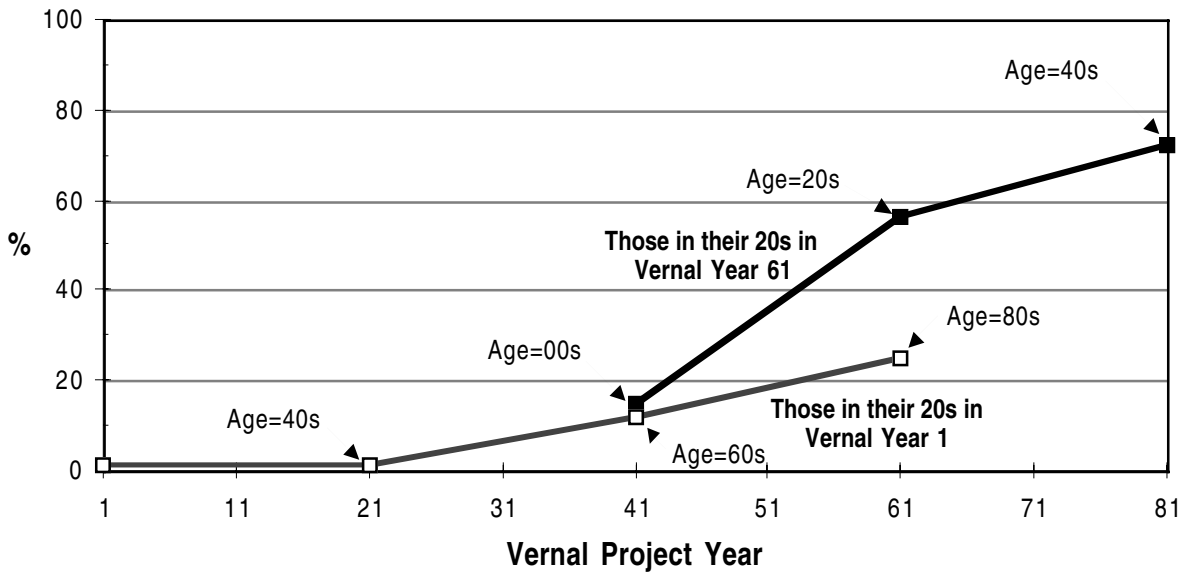
(Text continues on page 284)

* I have tried to choose values which might reasonably be induced by progressive social change movements of the size I believe Vernal activists could foster and support. Though based on my experience and my best thinking, these figures are, of course, complete conjecture.

Figure C.8: The Assumed Influence over Time

Age Cohrt in Yr 1	Age Cohrt in Yr 21	Age Cohrt in Yr 41	Age Cohrt in Yr 61	Age Cohrt in Yr 81	Prcnt of Pop Yr 1	Prcnt of Pop Yr 21	Prcnt of Pop Yr 41	Prcnt of Pop Yr 61	Prcnt of Pop Yr 81	(Assumed)			(Assumed)		
										Percent of Each Age Cohort Influenced by Vernal Year 21 (%)			Percent of Each Age Cohort Influenced by Vernal Year 41 (%)		
										Strong	Mod	Hardly	Strong	Mod	Hardly
—	—	—	—	00s	—	—	—	—	13.2	—	—	—	—	—	—
—	—	—	—	10s	—	—	—	—	13.2	—	—	—	—	—	—
—	—	—	00s	20s	—	—	—	—	13.2	—	—	—	—	—	—
—	—	—	10s	30s	—	—	—	—	13.2	—	—	—	—	—	—
—	—	00s	20s	40s	—	—	13.2	13.0	12.5	—	—	—	15.0	41.0	44.0
—	—	10s	30s	50s	—	—	13.2	12.9	11.9	—	—	—	16.0	44.0	40.0
—	00s	20s	40s	60s	—	13.2	13.0	12.5	10.5	1.0	5.0	94.0	16.0	44.0	40.0
—	10s	30s	50s	70s	—	13.2	12.9	11.9	7.8	1.0	5.0	94.0	15.0	41.0	44.0
00s	20s	40s	60s	80s	13.2	13.0	12.5	10.5	4.1	1.0	5.0	94.0	14.0	38.0	48.0
10s	30s	50s	70s	90s	13.2	12.9	11.9	7.8	0.9	1.0	5.0	94.0	13.0	35.0	52.0
20s	40s	60s	80s	—	13.0	12.5	10.5	4.1	—	1.0	5.0	94.0	12.0	32.0	56.0
30s	50s	70s	90s	—	12.9	11.9	7.8	0.9	—	1.0	5.0	94.0	10.0	30.0	60.0
40s	60s	80s	—	—	12.5	10.5	4.1	—	—	1.0	5.0	94.0	7.0	27.0	66.0
50s	70s	90s	—	—	11.9	7.8	0.9	—	—	1.0	5.0	94.0	3.0	23.0	74.0
60s	80s	—	—	—	10.5	4.1	—	—	—	1.0	5.0	94.0	—	—	—
70s	90s	—	—	—	7.8	0.9	—	—	—	1.0	5.0	94.0	—	—	—
Total					100.0	100.0	100.0	100.0	100.0	—	—	—	—	—	—

Figure C.9: Assumed Percent of Those Strongly Affected by Social Change Movements over Time by Age Cohort



of Progressive Social Change Movements by Age Cohorts

(Assumed)			(Assumed)			(Calculated)			(Calculated)			(Calculated)			(Calculated)		
Percent of Each Age Cohort Influenced by Vernal Year 61 (%)			Percent of Each Age Cohort Influenced by Vernal Year 81 (%)			Percent of Total Pop. Influenced in Year 21 (%)			Percent of Total Pop. Influenced in Year 41 (%)			Percent of Total Pop. Influenced in Year 61 (%)			Percent of Total Pop. Influenced in Year 81 (%)		
Strong	Mod	Hardly	Strong	Mod	Hardly	Strng	Mod	Hrdly	Strng	Mod	Hrdly	Strng	Mod	Hrdly	Strng	Mod	Hrdly
—	—	—	76.0	23.0	1.0	—	—	—	—	—	—	—	—	—	10.0	3.0	0.1
—	—	—	80.0	19.0	1.0	—	—	—	—	—	—	—	—	—	10.6	2.5	0.1
52.0	38.0	10.0	80.0	19.0	1.0	—	—	—	—	—	—	6.9	5.0	1.3	10.4	2.5	0.1
56.0	36.0	8.0	76.0	23.0	1.0	—	—	—	—	—	—	7.4	4.8	1.1	9.8	3.0	0.1
56.0	36.0	8.0	72.0	26.0	2.0	—	—	—	2.0	5.4	5.8	7.3	4.7	1.0	9.0	3.3	0.3
52.0	38.0	10.0	68.0	29.0	3.0	—	—	—	2.1	5.8	5.3	6.7	4.9	1.3	8.1	3.5	0.4
48.0	40.0	12.0	64.0	32.0	4.0	0.1	0.7	12.4	2.1	5.7	5.2	6.0	5.0	1.5	6.7	3.4	0.4
44.0	42.0	14.0	60.0	34.0	6.0	0.1	0.7	12.4	1.9	5.3	5.7	5.2	5.0	1.7	4.7	2.7	0.5
38.0	45.0	17.0	54.0	36.0	10.0	0.1	0.7	12.2	1.8	4.8	6.0	4.0	4.7	1.8	2.2	1.5	0.4
32.0	48.0	20.0	46.0	38.0	16.0	0.1	0.6	12.1	1.5	4.2	6.2	2.5	3.7	1.6	0.4	0.3	0.1
25.0	51.0	24.0	—	—	—	0.1	0.6	11.8	1.3	3.4	5.9	1.0	2.1	1.0	—	—	—
16.0	54.0	30.0	—	—	—	0.1	0.6	11.2	0.8	2.3	4.7	0.1	0.5	0.3	—	—	—
—	—	—	—	—	—	0.1	0.5	9.9	0.3	1.1	2.7	—	—	—	—	—	—
—	—	—	—	—	—	0.1	0.4	7.3	0.0	0.2	0.7	—	—	—	—	—	—
—	—	—	—	—	—	0.0	0.2	3.9	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	0.0	0.0	0.8	—	—	—	—	—	—	—	—	—

Average Amount of Influence (%)

	Vernal Year 21			Vernal Year 41			Vernal Year 61			Vernal Year 81		
	Strng	Mod	Hrdly	Strng	Mod	Hrdly	Strng	Mod	Hrdly	Strng	Mod	Hrdly
Influence on total population:	1	5	94	14	38	48	47	40	12	72	26	3
Influence on adults:	1	5	94	13	37	50	45	42	14	70	27	3

Assumptions:

Assume the overall population distribution would remain about the same as now.

Before progressive social change movements become prominent, assume that about 1% of the public is strongly influenced by existing movements for progressive change, 5% are moderately influenced, and the rest are hardly affected.

Figure C.10: Assumed Percent of the Public Affected by Progressive Social Change Movements by Year 21

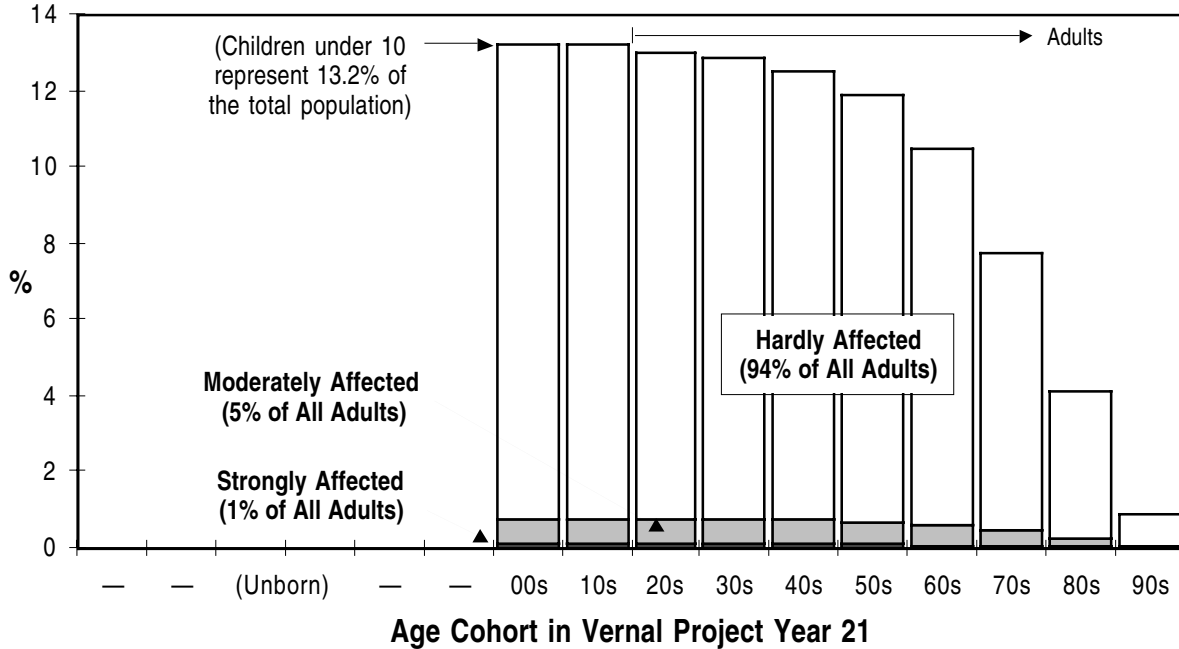


Figure C.11: Assumed Percent of the Public Affected by Progressive Social Change Movements by Year 41

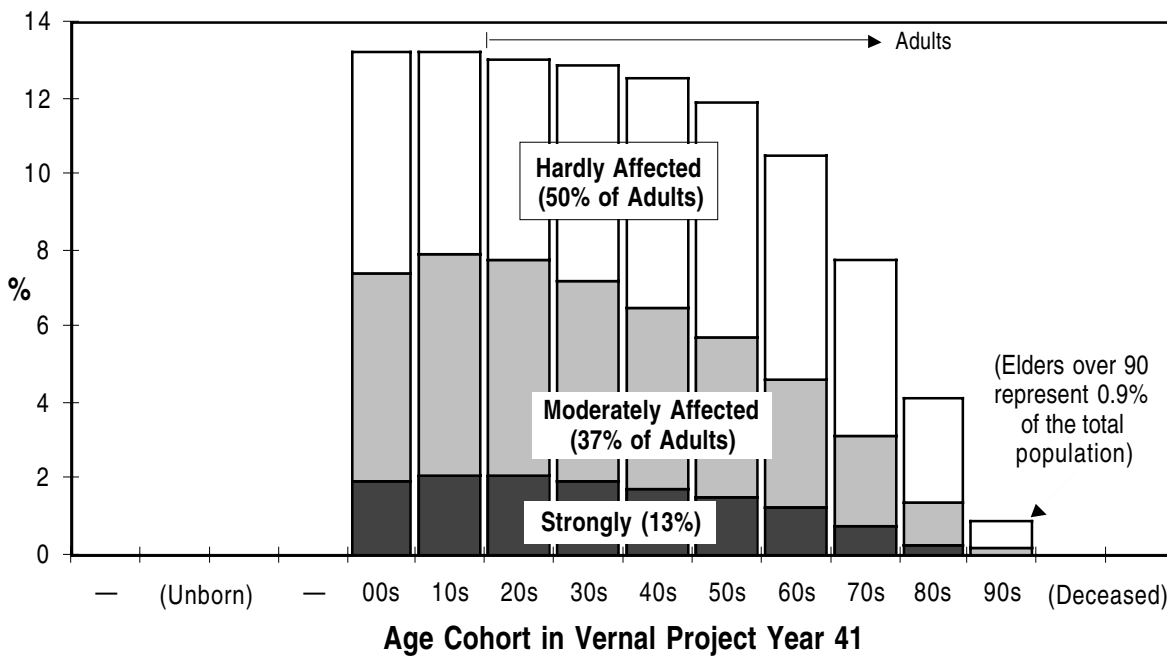


Figure C.12: Assumed Percent of the Public Affected by Progressive Social Change Movements by Year 61

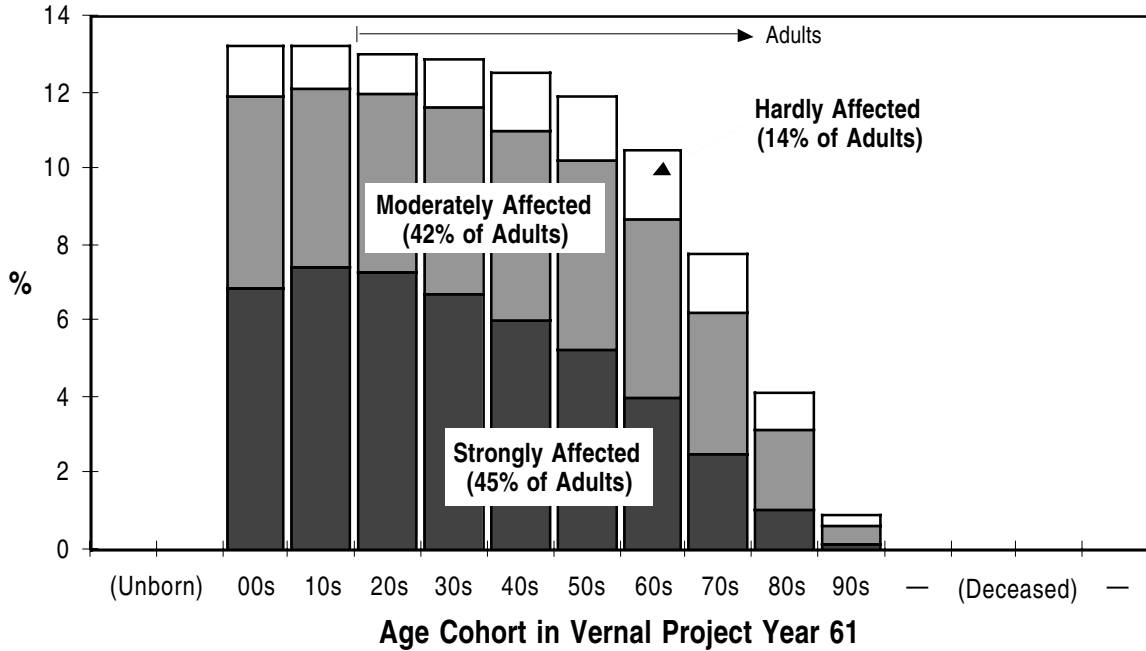
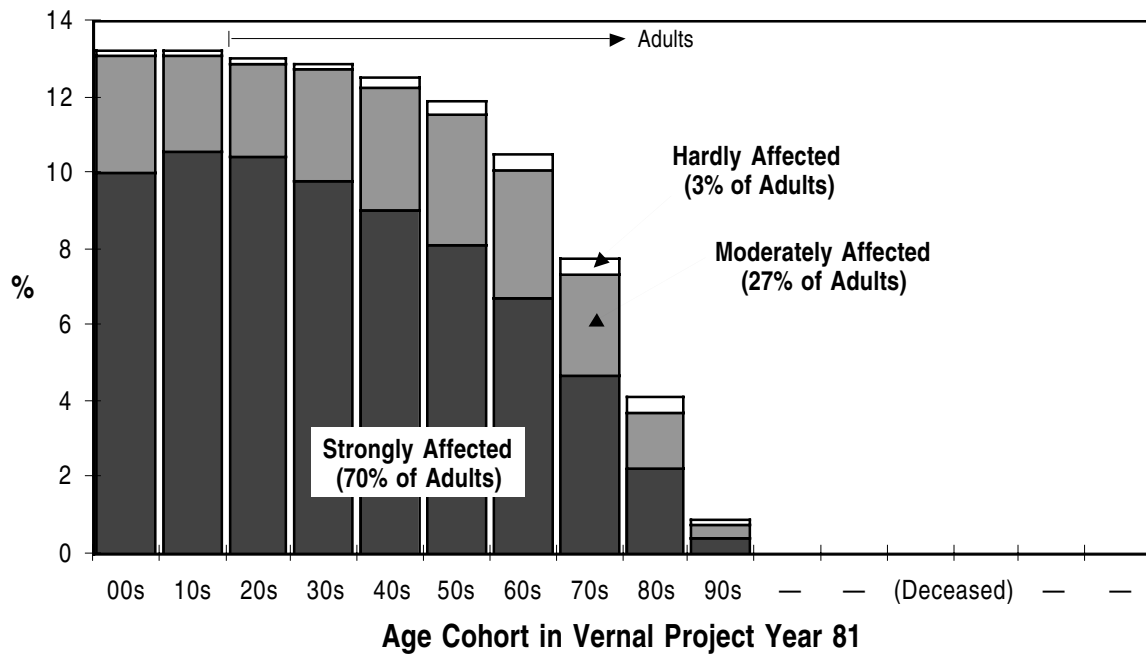


Figure C.13: Assumed Percent of the Public Affected by Progressive Social Change Movements by Year 81



In contrast, those people who were born sixty years later in Vernal Years 41 to 50, and hence would be in their twenties in Year 61 (shown as the upper shaded row in the figure), would be affected much more strongly by Vernal-supported progressive movements. Growing up and coming of age in the middle of a period of intense progressive activity, they would be quite aware of progressive ideas. In Year 41, when they were infants, toddlers, and young children, I assume 15 percent of them would be strongly affected and 41 percent would be moderately affected (about the same percent as their parents). I assume 44 percent would be hardly affected.

After another twenty years of intense progressive activity surrounding them, they would be influenced even more. In Year 61 when they were in their twenties and constituted 13.0 percent of the total population, I assume 56 percent of them would be strongly affected, 36 percent would be moderately affected, and only 8 percent would be hardly affected. In Year 81 when they were in their forties and had been surrounded by intense progressive activity for their entire lives, I assume 72 percent would be strongly affected and 26 percent would be moderately affected. By this year, I assume only 2 percent would be hardly affected.

Figure C.9 compares the percentage of those who would be strongly affected in these two age cohorts. In Year 61, only a quarter of those in their 80s would be strongly affected by progressive movements. Of those in their 20s in Year 61, 56 percent would be strongly affected.

The rightmost twelve columns of Figure C.8 calculate the combined impact of population turnover and progressive movement influence to indicate the percent of the total population who would be affected. At the bottom of these columns, I sum these columns to show the total percentage of the population and the total percentage of the adults (those twenty years old or older in this analysis) who would be affected in Years 21, 41, 61, and 81.

In Year 21, Vernal-supported progressive movements would only strongly affect about 1 percent of all adults and moderately affect about 5 percent, just as if the Vernal Project did not exist. But by Year 41, Vernal-supported progressive movements would affect half of the adult population — strongly affecting 13 percent of the adults and moderately affecting another 37 percent. By Year 61, Vernal-supported progressive movements would strongly affect 45 percent of the adults and moderately affect 42 percent more.

In Year 81, only 5 percent of those who were alive at the beginning of the Vernal Project would still be around. Those who were born after Vernal Year 20 — when Vernal-supported progressive movements first became prominent — would constitute 76.7 percent of the total population. By this year, 70 percent of the adults and 72 percent of the total population would be strongly affected by progressive movements. Only 3 percent would still be hardly affected.

Figures C.10, C.11, C.12, and C.13 graphically display these changes. In Figure C.10, which shows the situation in

Vernal Year 21, only about 1 percent of each of the ten-year age cohorts would be strongly affected by progressive movements, just as if the Vernal Project did not exist. Figure C.11 shows that twenty years later each cohort would be more progressive than before. A large percentage of the youngest cohorts would be moderately or strongly affected, but most of the members of the oldest cohorts would still be hardly affected. Just as important, though, the oldest cohorts would have shrunk in size and two new relatively large and progressive cohorts would have been born.

Figures C.12 and C.13 show the situation twenty and forty years later. Each cohort would continue to get more progressive over time, and the older cohorts — those least affected by progressive movements — would continue to shrink in size. New generations, affected much more strongly than their elders, would be born and make up a larger percentage of society.

In these figures, I assume that the Vernal Project — over the full course of its sixty-year existence — would have little influence on more than two-thirds of those who were older than 40 years of age in Vernal Year 1. The Project would strongly affect less than one-quarter of all those who were alive in this first year. Still, by ensuring there was a high level of progressive change activity over this long period, the Vernal Project could have a powerful impact on society. If the Project had the influence assumed here, it would strongly affect 70 percent and moderately affect another 27 percent of all those adults still living in Vernal Year 81. Only 3 percent of the population would remain unaffected. Clearly, aging and population turnover could greatly magnify the impact of the Vernal Project.

NOTES FOR APPENDIX C

¹ To help me make these estimates, I analyzed the results of several studies of the U.S. population.

Sidney Verba and Norman Nie, *Participation in America: Political Democracy and Social Equality* (New York: Harper & Row, 1972, JK2274 .A3V4) describes a study of citizens' political activity in 1967. Based on a large survey, they placed the population in seven distinct categories based on their primary participation mode:

Percent	Primary Participation Mode
22%	Inactive: those who take almost no part in political life, even voting
21%	Voting Specialists: those who only engage in voting
4%	Parochial Participants: those who contact state or local officials on personal concerns only
20%	Communalists: those who work primarily with others on local problems and issues — as well as voting
15%	Campaigners: those who work primarily on political campaigns — as well as voting
11%	Complete Activists: those who engage in all forms of political activity
7%	Unclassifiable

W. Russell Neuman, *The Paradox of Mass Politics: Knowledge and Opinion in the American Electorate* (Cambridge, MA: Harvard University Press, 1986, JK1967 .N48 1986) summarizes several studies of participation in electoral activity. Neuman concludes that about 20 percent of people are completely apolitical, 75 percent are marginally attentive to politics (they vote fairly regularly, but are aroused to further action only when society appears to be in a crisis), and only 5 percent are political activists.

Norman Ornstein, Andrew Kohut, and Larry McCarthy, *The People, the Press, & Politics: The Times Mirror Study of the American Electorate* (Reading, MA: Addison-Wesley, Times Mirror, 1988, HN90 .P8076 1988) describes an in-person survey of 4,244 people. At the time of the survey in September 1987, 47 percent of the respondents strongly supported the civil rights movement, 46 percent strongly supported the peace movement, 39 percent strongly identified as environmentalists, 29 percent strongly supported the women's movement, and 8 percent strongly supported the gay rights movement. Of the respondents, 27 percent were strong supporters of unions and 28 percent were strong supporters of business interests. Also, 27 percent of the respondents strongly identified as conservatives, and 19 percent strongly identified as liberals. Respondents reported that in the previous four years they had engaged in these activities:

Percent	Reported this Activity
55%	Signed a petition
30%	Wrote a letter, telephoned, or sent a telegram to an editor, public official, or company
17%	Were members of an organization that supported a particular cause
14%	Boycotted a company
6%	Spoke at a public hearing or forum

Sidney Verba, Kay Lehman Schlozman, Henry E. Brady, *Voice and Equality: Civic Voluntarism in American Politics* (Cambridge, MA: Harvard University Press, 1995, JK1764 .V475 1995) describes an extensive survey in 1989 and 1990. Based on telephone interviews with 15,053 people and 2,517 long personal interviews, respondents reported the following levels of political participation in the previous year or two (pp. 50-52):

Percent	Reported this Activity
71%	Voted in the 1988 presidential election (though records show only about 50% of the public voted)
24%	Contributed money to a political campaign effort
8%	Worked as a volunteer on an electoral campaign
34%	Initiated contact with a public official (letter, phone, personal contact)
6%	Engaged in a protest, march, or demonstration on a local or national issue
17%	Worked informally with others in the community to deal with a community issue or problem
14%	Attended a local board or council meeting
3%	Were members of a local board or council
48%	Were affiliated with an organization that takes political stands
29%	Attended meetings of a political organization

Looking in more depth at electoral activity, they report:

Considering the public as a whole, we find that the average American gave about 36 minutes a week and about \$58 to campaign activity during the 1988 campaign season. Only 4 or 5 percent of the public made what might be considered substantial contributions — more than five hours a week or more than \$250. The picture changes somewhat when we consider the amount given by the activists, especially with respect to time. Although only a small share of the public works in political campaigns, those who do take part give substantial time during the campaign: half dedicate more than five hours a week to campaign activity; and not insignificant proportions give more than ten, or even twenty, hours per week during the campaign. On average, those who work in a campaign devote seven and a half hours per week to it. Among financial donors, the volume given is also not unsubstantial. About one in five of the donors gives over \$250, and the average contribution is \$247. (53-54)

There is also variation in how often citizens engage in such acts as contacting and protesting. Those who get in touch with government officials tend to do so relatively often. In the initial screener survey, only 19 percent of those who indicated having gotten in touch with a public official within the past twelve

months made only one contact, and 39 percent indicated having done so four or more times. In contrast, those who report protesting are likely to do so only once. Over half, 53 percent, of the protesters had done so only once, and only 16 percent had done so as many as four times — even though the period covered by our question was two years rather than just one. (54, fn. 4)

These studies seem to establish that, at most, perhaps ten percent of the population is heavily engaged in political work. Of those people who are politically engaged, many probably work against progressive change, many take moderate positions, and many support only mild progressive change. Hence, it is likely that only a small fraction of the population works heavily for fundamental progressive change.

Though informed by these studies, my estimates rely mostly on my own knowledge and experience of social change efforts in the United States.