

ARTG 6100: Visualization Technologies II

Final Project - *Progress Review*

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Spending Budget of U.S. Government
By Function and Sub-function

1. New Dataset

Money spent on each function and sub-function from 1976-2023.
(Actual: 1976-2018, Projected: 2019–2023)

20 Functions, 3-6 Sub-Functions

A	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU
Table 5.1 - BUDGET AUTHORITY BY FUNCTION AND																
(in millions of dollars)																
Function and Subfunction	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 estimate	2019 estimate	2020 estimate	2021 estimate
050 National Defense:																
051 Department of Defense Military:																
Military Personnel	128,485	131,754	139,031	149,230	157,102	158,389	158,352	153,531	150,188	145,858	145,447	146,144	146,640	161,526	N/A	N
Operation and Maintenance	215,534	240,243	256,217	271,562	293,632	305,237	285,775	258,277	262,459	246,575	245,147	258,708	262,424	284,554	N/A	N
Procurement	105,370	133,776	164,992	135,439	135,822	131,899	118,321	97,757	100,412	102,108	118,894	124,339	125,611	144,545	N/A	N
Research, Development, Test, and Evaluation	22,855	27,549	29,568	80,004	80,232	76,688	72,033	63,347	63,483	63,872	69,544	74,129	74,833	92,633	N/A	N
Military Construction	9,530	13,974	22,064	26,814	22,578	15,991	11,368	8,069	8,394	5,654	6,927	6,893	7,081	9,801	N/A	N
Family Housing	4,427	4,005	2,917	3,853	2,268	1,832	1,690	1,483	1,416	1,149	1,254	1,316	1,277	1,584	N/A	N
Other	-1,299	1,649	9,902	552	4,012	1,435	6,858	2,775	9,371	5,654	8,502	14,701	35,058	448	N/A	N
051 Subtotal, Department of Defense Military	532,902	602,950	674,691	667,514	695,646	691,471	655,397	585,239	595,723	570,861	595,715	626,230	652,544	692,691	710,765	723,3
053 Atomic energy defense activities	17,433	17,181	16,630	22,985	18,228	18,529	18,305	17,485	18,404	19,018	20,118	21,367	21,862	23,106	24,211	24,7
054 Defense-related activities	5,931	5,692	4,912	7,053	7,314	7,005	7,721	7,433	8,157	8,520	8,284	8,742	8,430	8,593	9,213	5,8
Total, National Defense	556,265	625,823	696,233	697,562	721,188	717,035	681,423	610,157	622,284	598,909	624,117	656,339	682,236	726,390	744,189	753,8
150 International Affairs:																
151 International development and humanitarian assistance	14,533	16,269	17,652	25,262	25,222	21,658	22,312	23,625	23,759	26,152	25,788	28,779	28,449	15,563	11,805	11,8
152 International security assistance	9,067	10,581	10,549	11,162	14,095	12,466	14,124	12,598	11,650	12,246	11,879	12,451	12,767	11,412	7,326	7,3
153 Conduct of foreign affairs	9,827	9,537	12,073	14,352	15,820	14,029	16,298	15,118	13,825	14,254	14,917	16,153	16,229	12,116	8,420	8,4
154 Foreign information and exchange activities	1,261	1,266	1,256	1,431	1,580	1,552	1,546	1,445	1,489	1,515	1,563	1,640	1,622	894	893	8
155 International financial programs	-1,976	30,727	6,380	11,169	3,878	3,884	39,059	-12,233	6,766	9,111	-3,683	7,663	19,805	1,427	3,440	1,6
Total, International Affairs	32,712	68,380	47,910	63,376	60,595	53,589	93,339	40,553	57,489	63,258	50,464	66,686	78,872	41,812	31,884	30,1
250 General Science, Space, and Technology																
251 General science and basic research	9,260	9,799	10,213	15,969	11,860	11,740	12,027	11,614	12,362	12,552	12,953	13,022	12,852	9,484	9,476	9,4
252 Space flight, research, and supporting activities	15,765	15,481	16,580	18,134	18,228	17,913	17,200	16,350	17,081	17,370	18,651	19,182	18,665	18,580	18,984	18,9
Total, General Science, Space, and Technology	25,025	25,280	26,793	34,103	30,088	29,653	29,227	27,964	29,443	29,922	31,604	32,204	31,717	28,464	28,460	28,4
270 Energy:																
271 Energy supply	-943	-803	2,218	18,216	5,776	5,908	7,739	7,747	6,350	4,538	3,342	4,293	3,510	803	-5,863	-
272 Energy conservation	781	828	1,233	23,678	1,105	232	-183	96	1,043	1,142	1,221	1,195	1,215	-4,017	316	3
274 Emergency energy preparedness	155	169	199	215	215	135	-297	110	-2,546	202	220	-219	-501	-447	-139	2
276 Energy information, policy, and regulation	316	460	578	696	601	437	486	502	586	512	548	523	515	546	547	5
Total, Energy	304	654	4,228	42,805	7,737	6,712	7,745	8,445	5,433	6,394	5,331	5,892	4,739	-3,115	-5,139	1,0
300 Natural Resources and Environment:																
301 Water resources	13,309	7,971	10,912	19,065	6,813	6,146	7,939	11,067	7,029	6,753	7,326	8,557	7,259	5,735	6,040	5,7
302 Conservation and land management	8,585	9,343	9,587	12,075	11,933	10,926	10,505	10,639	11,594	9,470	14,478	16,080	14,650	14,258	14,116	13,8
303 Recreational resources	5,010	5,109	5,352	4,226	3,809	3,550	3,476	3,824	3,848	3,919	4,137	4,205	4,327	4,601	3,966	4,0
304 Pollution control and abatement	7,777	7,090	7,517	14,955	10,473	8,548	8,677	8,499	8,343	8,113	8,202	8,168	7,595	5,493	5,601	5,6
306 Ocean resource management	4,185	4,410	4,748	7,671	4,456	4,184	4,505	4,048	4,877	7,476	7,387	7,684	7,143	4,698	4,093	4,0

2. Narrow down my theme

How the budget is allocated among various functions from 2000 to 2018

3. Decide what I want to show

- | How the various components of expenditures contribute to the total?
- | Trend Analysis
(Changes over years)

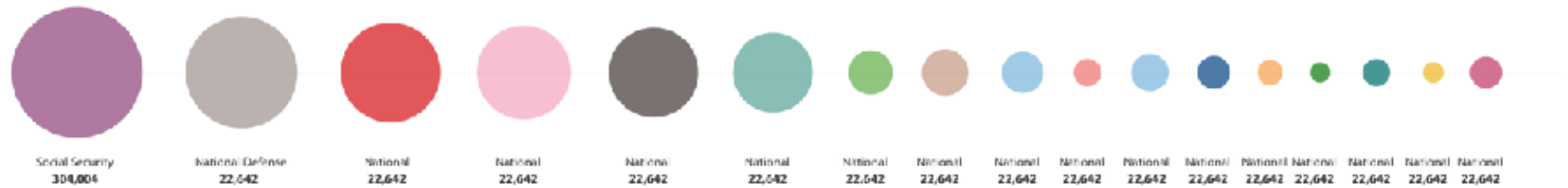
| How the various components of expenditures contribute to the total?

Composition + Comparison

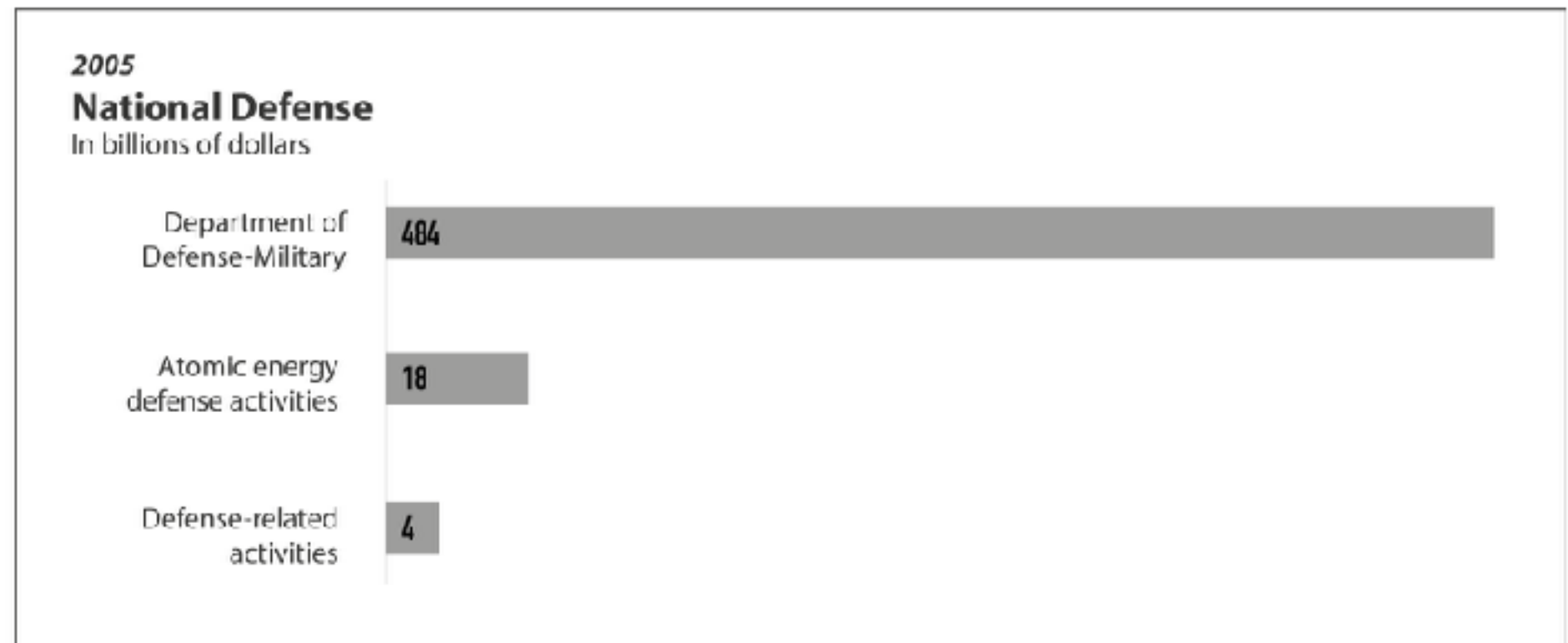
Slide Bar



Circles changing with transition **Area + Rank**

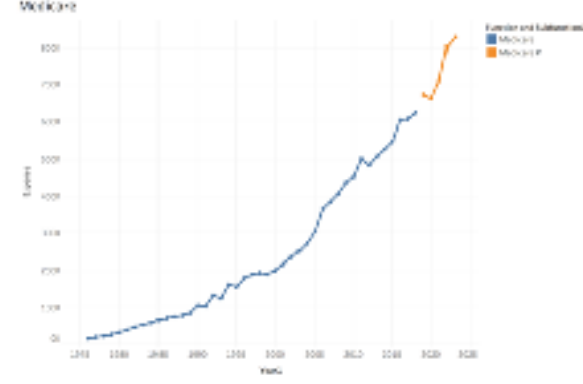
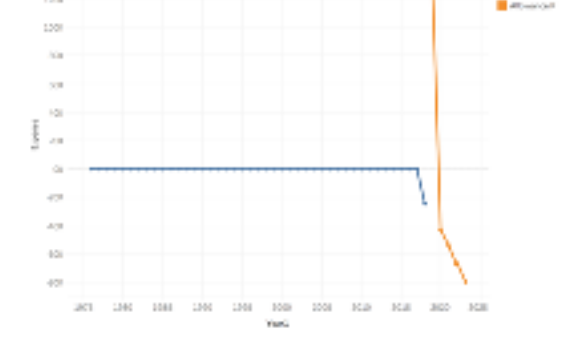
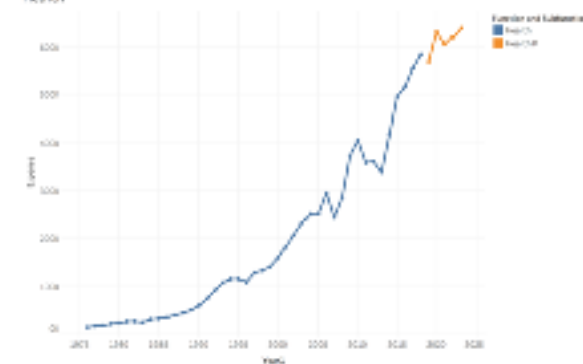
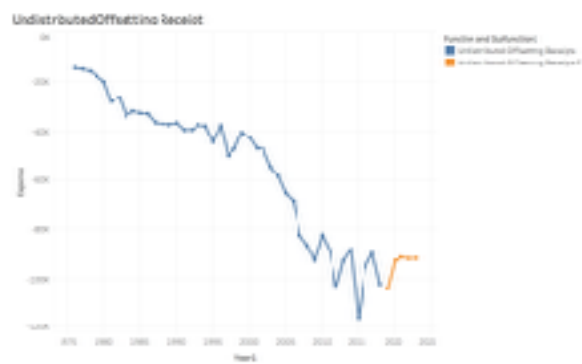
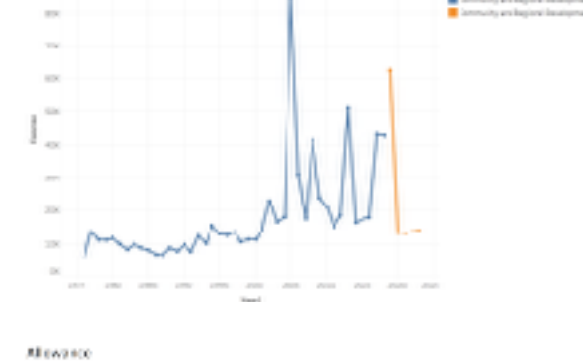
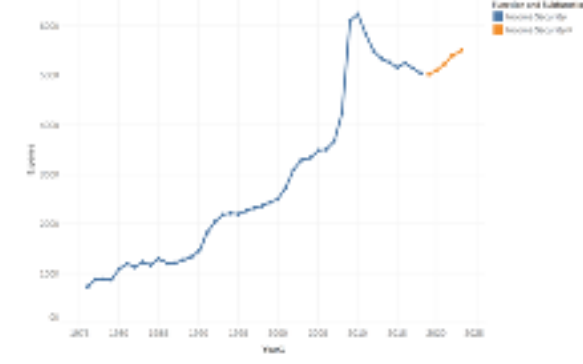
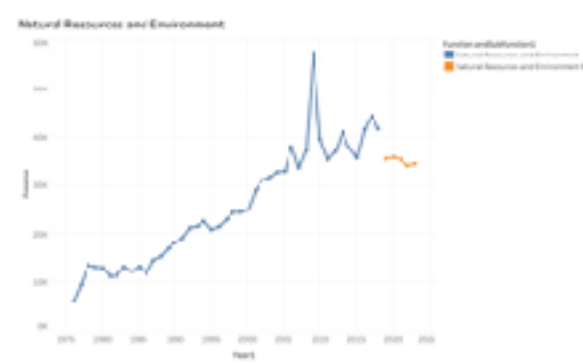
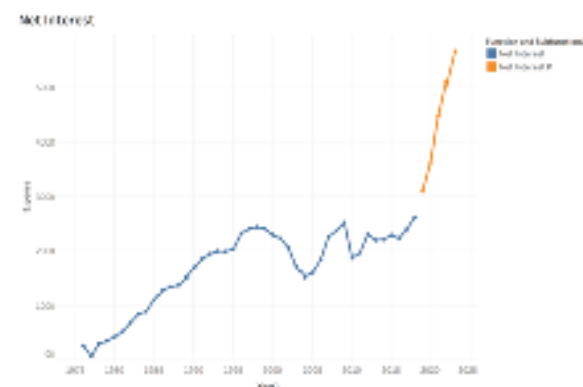
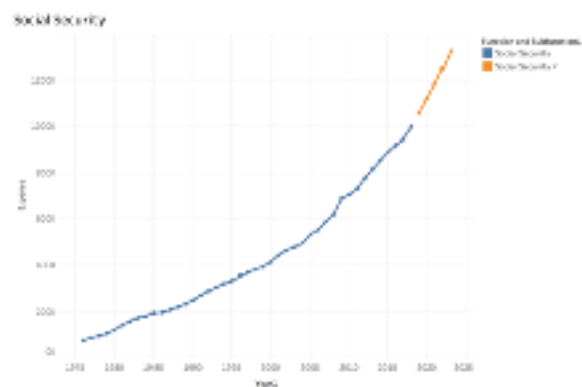


Tooltip



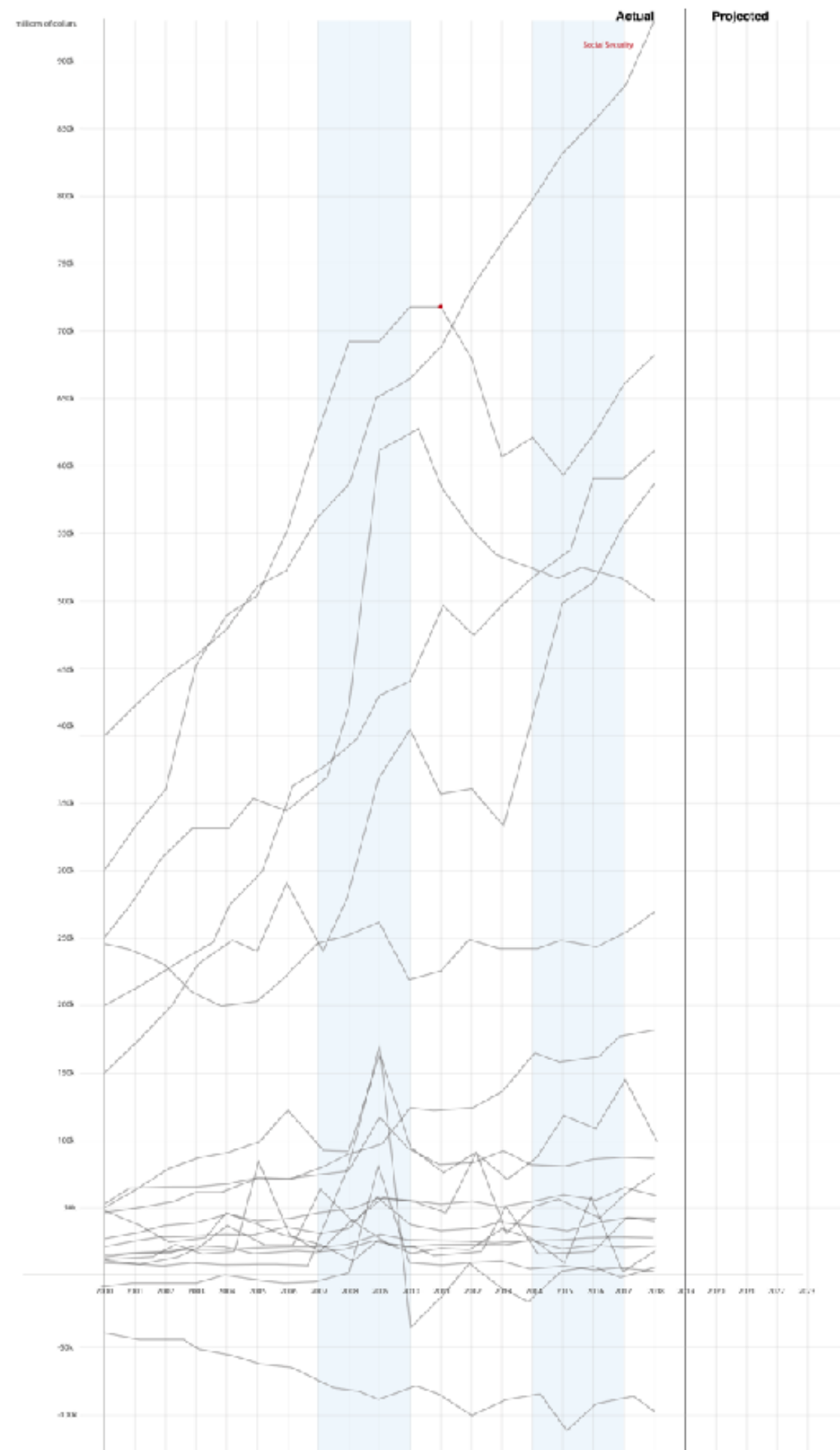
| Trend Analysis (Changes over years)

Trend Analysis of dollar amounts



National Defense International Affairs General Science, Space, and Technology Energy Natural Resources and Environment Undistributed Offsetting Receipts
 Agriculture Commerce and Housing Credit Transportation Community and Regional Development Education, Training, Employment, and Social Services Airspace
 Health Medicare Income Security Social Security Veterans Benefits and Services Administration of Justice General Government Net Interest

Hard to hover over
Too long, cover a wide scope



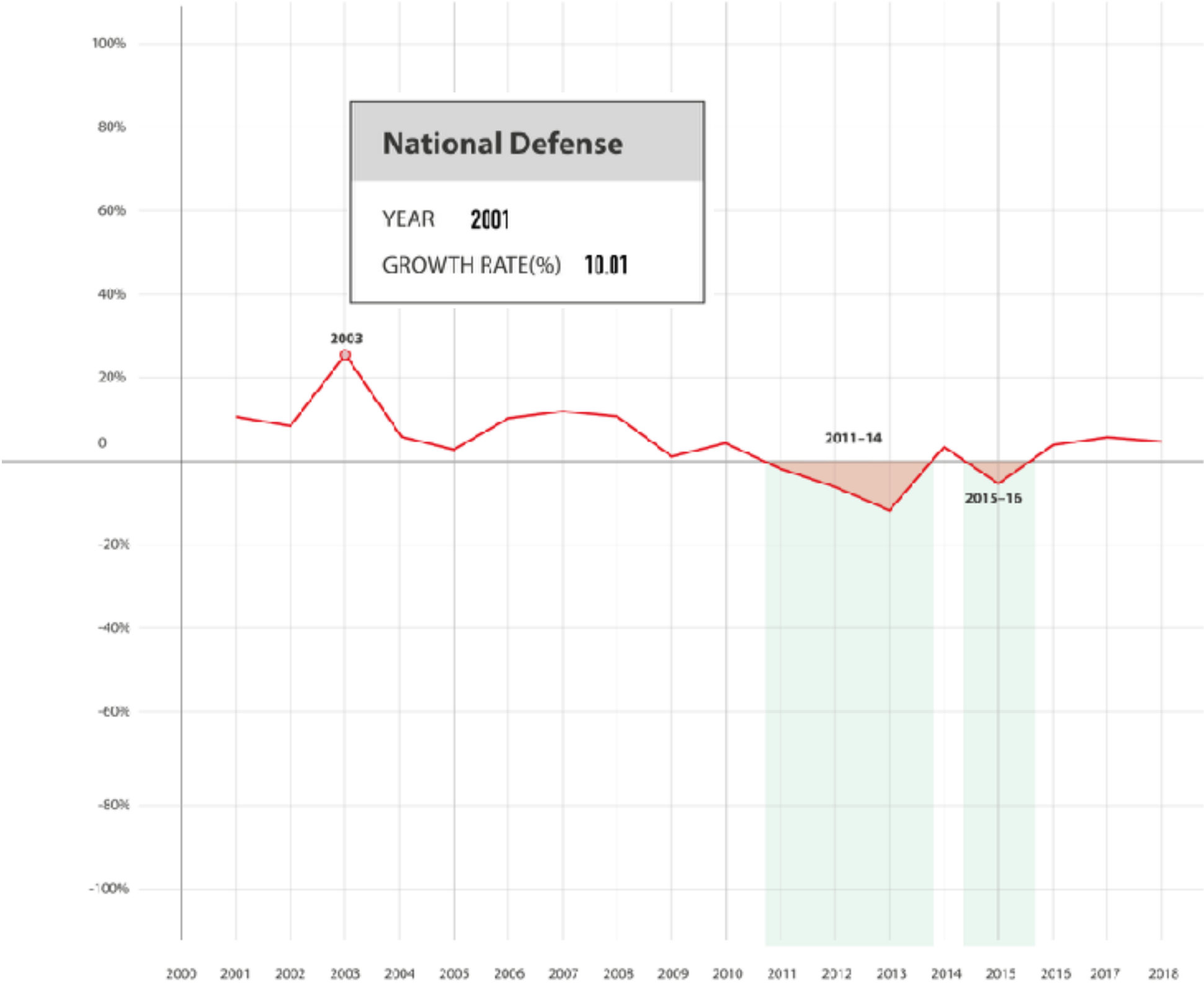
| Trend Analysis (Changes over years)

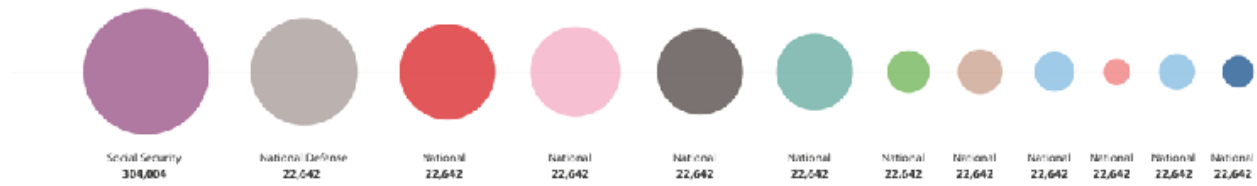
Trend Analysis of growth rate

- | Limit the height of the graph.
(-100% - 100%)
- | The negative part represents the recession period.

National Defense

Tooltip





2005 National Defense In billions of dollars	
Department of Defense-Military	404
Atomic energy defense activities	18
Defense-related activities	4



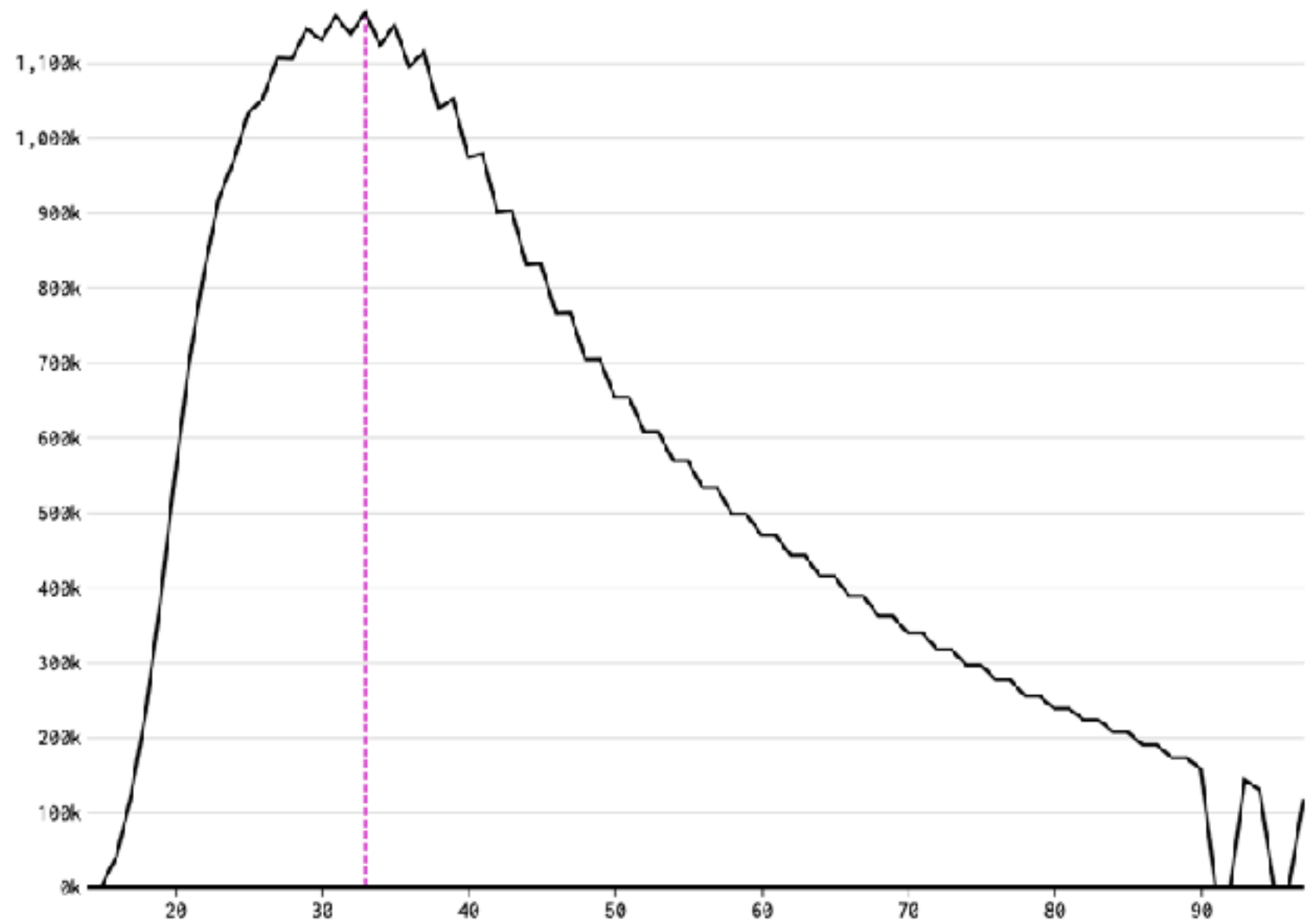
Thank You

KEEP LOOKING FOR SINGLE...

SEX

EMPLOYMENT

RACE OR ORIGIN



HAITI

On average: a life expectancy of 42 years in 1960 and 61 years in 2009, an increase of 46 percent.

