Accountability, of government, 152–154
Almond, Gabriel, 87–88
American Academy of Arts and Sciences, 57
American People and Foreign Policy, The, 87
"Anti-science" attitudes, 97. See also Public attitudes to science
Aristotle, vii
Autonomy, of professions, 116–117
Auto safety, research on, 11–12
Bard, Samuel, 132
Bauer, Raymond, 50, 55, 57–58, 60–61
Bell, Daniel, 55
Bell Laboratories, x
Benison, Saul, 47
Bentham, Jeremy, 48, 53
Bodian, David, 43
Bok, Sissela, 157
Boulding, Kenneth, 82–84, 86, 152
Branscomb, Lewis, 157–158
Brigham Young University, 119
Brooks, Harvey, 51, 55, 153, 157–158, 162
Brown, George E., Jr., 158
Bush, Vannevar, 3, 38, 123
Cade, Joseph, 144
California, University of, 141
Cancer and the environment, research on, 12–15, 44–45
Carter, Jimmy, 36
Carter Administration, 109, 124
Chemical Abstracts Service, ix
Citation analysis, x, 1, 33–34, 36, 46
Commoner, Barry, 151
Competition in science, 135–136
Comprehensive Environmental Response Compensation and Liability Act of 1980, 30
Comroe, Julius H., Jr., ix, xi
Confidence in technology, 103
Consumer Price Index (CPI), 54
1 Corinthians, 119
Creationism, ix
Crick, Francis, 136
Crime series data, 56
Cryptography, research on, 143–146
Culliton, Barbara, 116
David, Edward, 37
Declaration of Scientific Principles, 132–133
Delbrück, Max, 136
Doble, John, 161
"Double-blind" studies, 139
Double Helix, The, 136
Dripps, Robert D., ix, xi
East-West Center, 21
Economic Indicators, 54
Economic indicators, 1, 2, 33, 54
Economic Report, 54–55
Einstein, Albert, 126–127
Encyclopédie (1765), 132–133
Enders, John, 43
Engineering education, 79–80
“Extra-scientific” social standards, viii
Extrinsic/intrinsic measures, x, 2–4, 69, 74, 81, 158–159
Extrinsic measures, development of, 5
Federal Republic of Germany
economic growth of, 22
freedom of research in, 114
Federation of American Scientists, 63
Fermi awards, 9
Finlay, Carlos, 39
Flexner, Simon, 40
Ford, Gerald, 84
Foreign Affairs, 87
Foreign Policy, 87
Frankenstein, 119
Fried, Charles, 3
Friedman, Milton, 123
Fuqua, Don, 158, 161–162
“Garrison state,” 151
Gaston, Jerry, 135
General Electric Company, 75
Genetic engineering. See Recombinant DNA
Gilder, George, 123
Global 2000 report, 19–20, 120
GNP. See Gross National Product
Gorgas, William C., 40
Graubard, Stephen, 110
Greenspan, Alan, 54
Gregory, A. S., 84
Gross National Product (GNP), 1, 33, 54
Hackerman, Norman, 84
Hatch, Orrin G., 158
Health of science, viii, 1, 20, 45, 48, 49–50, 65
Health of the Scientific and Technical
Enterprise, The, 49
Henning, Thomas, 134
Hepatitis, research on, 43–44
Hippocratic Corpus, 131
Hoffman-La Roche, 141
Holton, Gerald, 77, 149, 161
Hornig, Donald F., 49
IBM Corporation, 70–78, 157
Innovation, x, 4, 124
Input/output measures, xi, 1, 33, 36
Inside/outside measures, 50–52, 63–65, 158. See also Extrinsic/intrinsic measures
Institutionalization of science, 113–118
Institutional review boards, 154
International Energy Agency, 17
International Federation of
Institutes for Advanced Study (IFIAS), 21
International Institute for Applied
Systems Analysis (IIASA), 20–21
Intrinsic/extrinsic measures. See Extrinsic/intrinsic measures
Italy, economic growth of, 22
Japan
economic growth of, 22–23
industrial innovation in, 23
Jefferson Lectures, 83
Jencks, Christopher, 46
Josephson superconducting
technology, 75
Judson, Horace, 136
Kelvin, Lord (William Thomson), 48, 65
Kennedy, Donald, viii
Kepler, Johannes, 48
Keyworth, George A., viii
Kistiakowsky, George, 63
Lasker, Mary, 35
Latour, Bruno, 148
Lawrence awards, 9
Lawwill, Stanley, Jr., 84
Loweth, Hugh, 36–37
Index

McCarthy, Joseph, 133
Marx, Leo, 62, 149, 153, 156
Massachusetts Institute of Technology, Program in Science, Technology, and Society, vii
Mazlish, Bruce, 158
Mazur, Allan, 85, 99
Merton, Robert K., 52–53, 132–133, 136
Michelson-Morley experiment, 69
Michigan, University of, 104
Miller, Jon D., 56, 59, 98, 162
Mitroff, Ian I., 147–148
Moral Majority, 87, 104–105
Morin, Alexander J., 109, 153, 155
Morison, Robert S., 11–12, 63
Morrison, Philip, 63
Mulkay, Michael J., 147
Nader, Ralph, 11, 107
Nation, The, 87
National Academy of Sciences, 63, 124
National defense policy, 129
National Opinion Research Center (NORC), 101
National Research Council, ix
National security, 3, 134
Nature, 132
Nazi government and research, 114
Nelkin, Dorothy, 147, 153
Nobel prizes, as indicator of quality, x, 1, 4, 33, 36, 46
Noguchi, Hideyo, 40
Norms of science, 132–133, 136, 142, 156, 159
O'Connor, Basil, 42
Oresme, Nicole, vii
Organisation for Economic Cooperation and Development, x, 4, 17
Panama Canal Treaty, public attitudes to, 109
Passmore, John, x
Pauling, Linus, 136
Pearson, Robert, 162
Peer review, ix, 3, 34, 68–69, 73, 89, 120, 133, 138, 152
People's Republic of China, research in, 95
Personal Priorities Inventory, 106–107
Pilate, Pontius, 37
Piore, Emanuel R., viii, 77
Poliomyelitis, research on, 42–43
Politicization of science, 96–97, 115–117, 149–150, 156, 158
Press, Frank, viii, 124, 149
Prewitt, Kenneth, 56, 59, 61, 101–103, 105, 150, 153, 158, 162
Price, Derek J. de Solla, 52–53, 55
Priority in science, 136–137
Profession, definition of, 115–116
Protestant Ethic, 112
Public Agenda Foundation, 60, 100, 161
Public attitudes to science, ix, 9, 56, 60, 61, 82–97, 100–113, 149–151, 159, 160
Public confidence in social institutions, 85–86, 103
Public images of science, 82–87, 94
Radioactive wastes, research on, 9–11
Railroad and the Space Program, The, 58
Rate of adoption of technology, 24
Reagan, Ronald, 122
Reagan Administration, 25, 122–125
Recent Social Trends, 56
Recombinant DNA, research on, 16, 47, 154
Reed, Walter, 39
Index

Research and development (R&D) industrial, 22, 38, 70–78
military, 3, 4, 22, 24–25, 63
national planning for, 18–29, 126–130
public sector programs, 25–27
U.S., 37, 120, 123–124
U.S., investment, 126–130
U.S., priorities, 6, 16–17, 152
Resource Conservation and Recovery Act of 1977, 7
Rockefeller Foundation, 39–41
Roosevelt, Franklin Delano, 126–127

Salk vaccine, 42
Sarnoff, David, 37
Sawyer, David Haskell, 60
Science, The Endless Frontier, 3, 38, 123
Science at the Bicentennial, 84, 86
Science education, viii, 79–80
Science indicators
evaluation of, 56, 58, 161
use of, 1, 24, 34–35, 54–55
value of, 48
Science Indicators—1972, ix
Science Indicators—1976, 59
Science Indicators—1980, x, 123
Science Indicators series, x–xi, 159
Science literacy, 15, 83, 96, 128–130
“Scientification” of social institutions, 115
Scientific progress, viii, 123, 134
Scientists’ Institute for Public Information, 97
Scientometrics, x
Scientometrics, 52–53, 65
Secrecy
ethics of, 134–135, 144
in government, 123
in science, 131–148, 157
military, 22, 134, 141, 143–146
trade, 141–142
Self-governance in science, 127, 130

Shapley, Willis, 61, 76
Shils, Edward, 133
Smith, Bruce, 98
Social indicators, ix, 2, 20, 57
Social Indicators—1976, ix
Social Indicators series, 50
Social inequality, 46
Social invention, definition of a, 58
Social Science Research Council, x
South America, eradication of yellow fever in, 40–41
Stevenson, Earl, 50
Superfund legislation, 7
Surveillance, Epidemiology, and End Results (SEER) program, 13–14

Tax policy, 4, 26–27, 89
Technology assessment, 5, 16
Theiler, Max, 40–41
Thurow, Lester, 54
Toward a Metric of Science, x
Toxic chemicals, research on, 6–9
Toxic Substances Control Act of 1976, 7
Trachtman, Leon E., 97–98
Truman, Harry, 123
“Two cultures,” 129

United Kingdom, industrial innovation in, 23
United Nations Educational, Scientific and Cultural Organization (UNESCO), 21, 57
United States Atomic Energy Commission, 9
United States Auto Safety Administration, 11
United States Congress, viii, 34–35, 78, 91, 120–121, 124–125, 151, 158
United States Constitution, 96–97
United States Council on Environmental Quality, 19
Index

United States Department of Defense, 63, 90, 121
United States Department of Energy, 121
United States Department of Health, Education, and Welfare
Food and Drug Administration, 123
National Institutes of Health, 3, 13–14, 35, 38, 44, 121
United States Department of State, 19, 90
United States Environmental Protection Agency, 123
United States Ethics Advisory Board, 154
United States National Aeronautics and Space Administration, 57, 121
United States National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 154
United States National Science Board, ix, x, 34–35, 78–80, 84–85, 90–91
United States National Science Foundation, ix, 3, 38, 68, 78–81, 83–84, 92, 101, 121, 123, 162
Authorization Act for FY1976, 91
establishment of, 78
United States National Security Agency, 143–144
United States National Security Council, 90
United States Office of Management and Budget, viii, 35–36
United States Office of Research, 63
United States Office of Science and Technology Policy, 62, 150
United States Office of Technology Assessment, 14, 16, 49
United States Postal Service, research on, 64
Utilitarians, 48

Vernon, Raymond, 24

Walgren, Doug, 158, 161–162
Watson, James, 136
Wealth and Poverty, 123
Weber, Max, 114
Weingart, Peter, 93, 158
Wooldridge Study, 14
Woolgar, Steve, 148
"Working through," 61, 107–108
World War II, secrecy and, 132
Wright, Christopher, 76–77

Yankelovich, Daniel, 60–61, 158–159, 161
Yankelovich, Skelly, and White, Inc., 102
Yellow fever, research on, 39–42
York, Herbert, 63

Ziman, John, 62