COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, ss

SUPERIOR COURT DEPARTMENT
OF THE TRIAL COURT

James HATT, Kristin HATT, and Elizabeth WEINBERG, individually and derivatively on behalf of the Trustees of the Berkshire Museum

Plaintiffs,

v.

TRUSTEES OF THE BERKSHIRE MUSEUM, a/k/a the Berkshire Museum of Art, History, and Science, a corporation, and Elizabeth MCGRAW; Stacey Gillis WEBER; Ethan KLEPETAR; Stephen BAYNE; Lydia S. ROSNER; Mike ADDY; Jay BIKOFSKY; Douglas CRANE; Howard J. EBERWEIN III; Ursula EHRET-DICHTER; David GLODT; Wendy GORDON; William M. HINES, JR.; Joan HUNTER; Eric KORENMAN; Barbara KRAUTHAMER; Donna KRENICKI; Suzanne NASH; David NEUBERT; Jeffrey NOBLE; Caitlin PEMBLE; and Melissa SCARAFONI, individuals in their capacity as Trustees of the Berkshire Museum of Art, History, and Science,

Defendants.

CIVIL ACTION NO.

AFFIDAVIT OF STEPHEN C. SHEPPARD, PH.D.

I, Stephen C. Sheppard hereby depose and state under the penalties of perjury:

1. I am over 18 years of age and I make this affidavit based on my personal knowledge. I am not a party to this case and I have not been compensated by any party to this case.

2. I am a Professor of Economics at Williams College and Director of the Center for Creative Community Development ("C3D"). I specialize in the study of urban development and the use of economic geography tools. I research the impacts of amenities and externalities on housing markets and neighborhoods, as well as issues of urban expansion in cities around the world. I have been teaching at Williams since 2000 and director of C3D since its founding in 2004, studying the community development impacts of the arts. I have also taught economics at Oberlin College, the London School of Economics, Virginia Polytechnic Institute, Washington University, and Webster University.

3. I hold a B.S. from the University of Utah in Economics, and an M.A. and Ph.D. in Economics from Washington University. For further detail concerning my publications and professional activities, my *curriculum vita* is attached hereto as Exhibit 1. My areas of scholarship and teaching include analysis of the role of cultural institutions in promoting economic vitality and the determinants of economic success of cultural institutions.

4. My first contact with the possible sale of paintings from the Berkshire Museum in Pittsfield was sometime around late January of this year. I was contacted by the museum's director Van Shields, who asked me to come and speak with him and members of his staff about economic impacts. From what I was told, I understood that they had at that time recently completed a series of focus groups about the display methodology of the museum. Mr. Shields mentioned to me that they planned to sell some paintings. I met with the museum again in February, and asked if the museum had a budget for its contemplated plans, and was told it did not. The museum also raised the possibility of my conducting an economic impact analysis, but those discussions ended shortly after they began.

5. After the museum made its announcement in July of this year, I was contacted by a reporter at the *Berkshire Eagle*. At that point, I undertook independently to consider the economics of what the museum was proposing to do. I was not hired by anyone to do so, nor was I paid to do so.

6. To perform my analysis, I downloaded the museum's audited financial statements, and reviewed its public statements concerning what it was calling the "New Vision." In my conversations with the *Eagle*, I made clear that I would need to speak with the museum about the basis for some of its calculations. I requested a meeting with Mr. Shields, and went to the museum in late August.

7. At that meeting there were representatives of the museum and the press. We had what I would call an informal conversation about the concept of an institution's structural deficit. After that conversation, I produced a written analysis entitled "Notes on the Berkshire Museum Structural Deficit." This paper is has been publicly available on the C3D website (www.c-3-d.org) since I completed it.

8. A true and accurate copy of my written analysis is attached hereto as Exhibit 2.

9. The report speaks for itself, but I draw attention to a few key conclusions. The first is that the major flaw in the museum's assertion of a financial emergency is that its financial analysis and projections do not account for its existing or contemplated endowment. Specifically, the museum has not accounted for earnings on its endowment as a revenue source, nor for a regular draw from endowment funds which should be part of the financial picture. My report sets out how those earnings should be incorporated. The museum has been operating at a loss (particularly when its recent expenditures on consultants are considered), but not to the extent that it represents and not in a way that threatens imminent insolvency. I concluded that

even with no changes or additional revenue the museum could operate at its existing losses for approximately eight more years. As I note in my analysis (emphasis in the original):

> A measurement of financial deficit should satisfy at least two goals. First, it has to provide a reasonably accurate picture of the current state of the organization including helping managers to anticipate crises. Second, it has to provide a yardstick that can be consulted to assess progress of the organization and effectiveness of actions taken to stabilize finances or correct imbalances.
>
> In my view, the current **calculation of the museum's deficit fails to satisfy these two goals and does not accurately represent the problems faced by the museum.**

10. A second flaw with the "New Vision" is that it disregards the need for future fund-raising. Raising money is an essential part of non-profit management, and certainly among the less enjoyable aspects of it. But substituting assumptions about the receipts from the sale of the artwork up for auction for the difficult business of fund-raising is unrealistic.

11. Lastly, in my opinion the "New Vision" proposed by the museum does not reflect a consideration of the real expense of running a museum in the manner suggested. The idea of a large endowment is attractive in the abstract, but I do not perceive a sophisticated understanding on the part of the museum as to how that would work. Even if all of the art works proposed for deaccessioning were sold and the Museum's endowment was increased by $40 million dollars, there would be no impact on the structural deficit as it is currently being measured because the Museum's financial reports do not consider a normal draw on endowment funds as part of available resources.

12. Based on my analysis, rebuilding the endowment with an addition of $13.34 million would provide an increase in the normal annual contribution towards operations of sufficient magnitude to eliminate the average deficit. In this sense the Museum's difficulties,

while real, are seen to be a "$14 million problem" and not a "$60 million problem."

Signed under the pains and penalty of perjury this 24th day of October, 2017.

Stephen C. Sheppard, Ph.D.

EXHIBIT 1

August 25, 2016

Curriculum Vita

Stephen Charles Sheppard

Address:

Office

Department of Economics
24 Hopkins Hall Drive
Williams College
Williamstown, MA 01267
Phone (413) 597-3184
e-mail stephen.c.sheppard@williams.edu

Home

86 Gale Road
Williamstown, MA 01267

Phone (413) 248-7437
e-mail stephen.sheppard@gmail.com

Education:

Ph. D., Washington University, St. Louis, 1984
A.M., Washington University, St. Louis, 1979
B.Sc., University of Utah, Salt Lake City, 1977

Published Papers:

'The Qualitative Economics of Development Control', by Stephen Sheppard, *Journal of Urban Economics*, **24**, 310-330, (1988).

'British Planning Policy and Access to Housing', by Paul Cheshire and Stephen Sheppard, *Urban Studies*, **26**, 469-485, (1989).

'Nice Demand in Rough Neighborhoods: Continuity in Non-Convex, Dispersed Economies', by Stephen Sheppard, in *Economic Theory and International Trade: Essays in Memoriam of J. Trout Rader*, edited by Wilhelm Neuefeind and Raymond Riezman, Berlin : Springer - Verlag, (1992).

'A Model of Regional Contraction and Unemployment', by Barry McCormick and Stephen Sheppard, *Economic Journal*, **102**, 366-377, (1992).

'The Benefits of Transport Improvements in a City with Efficient Development Control', by Stephen Sheppard and Mark Stover, *Regional Science and Urban Economics,* **25**, 211-223, (1995).

'Capturing Land Value Based Externalities in U.S. Communities' (in Japanese), by Stephen Sheppard, in *Land Use and Capturing Land Value Based Externality*, edited by Makato Ikeda, Tokyo: Mitsubishi Research Institute (1995).

'On the Price of Land and the Value of Amenities', by Paul Cheshire and Stephen Sheppard, *Economica,* **62**, 247-267 (1995).

'Housing Supply under Rapid Economic Growth and Varying Regulatory Stringency: An International Comparison', by Stephen Mayo and Stephen Sheppard, *Journal of Housing Economics,* **5**, 274-289 (1996).

'Welfare Economics of Land Use Regulation', by Paul Cheshire and Stephen Sheppard, *LSE Research Papers in Environmental and Spatial Analysis No. 42*, London: London School of Economics, February, 1997, ISBN 0-7530-017-5.

Published Papers, continued:

'The Costs of Constraint', by Paul Cheshire and Stephen Sheppard, *Parliamentary Review*, February 1997, p. 38.

'An economic analysis of land use planning: some welfare and distributional effects of the British system - or the costs of constraint', by Paul C. Cheshire and Stephen Sheppard, *VOGON Journaal*, **5**, May 1997, 11-16.

'Estimating hedonic demand using single-market data: a practical solution using "nearby" instruments', by Paul C. Cheshire and Stephen Sheppard, *LSE Research Papers in Environmental and Spatial Analysis No. 51*, (August, 1998) London: London School of Economics, ISBN 0 7530 1251 0.

'Estimating Demand for Housing, Land, and Neighbourhood Characteristics', by Paul Cheshire and Stephen Sheppard, *Oxford Bulletin of Economics and Statistics*, **60**, August 1998, 357-382.

'Hedonic Analysis of Housing Markets', by Stephen Sheppard, in *Handbook of Regional and Urban Economics Volume 3: Applied Urban Economics*, edited by Paul Cheshire and Edwin Mills, Amsterdam: North Holland, 1999, Chapter 41, pp 1595 – 1635.

'Land strapped', by Paul Cheshire and Stephen Sheppard, *ROOF Housing Market Healthcheck*, Issue 2, Winter 1999.

'Building on brown fields: the long term price we pay', by Paul Cheshire and Stephen Sheppard, *Planning In London*, Issue 33, April-June 2000, 34-36.

'Fiscal Austerity and Public Servant Quality', by Nadeem ul Haque, Peter Montiel, and Stephen Sheppard, *Economic Inquiry*, **38**, July 2000, 487-500.

'Public Investment and Regional Labour Markets: The Role of UK Higher Education', by Phil McCann and Stephen Sheppard, in *Public Investment and Regional Development: Essays in Honour of Moss Madden*, Felsenstein D., et al. (eds), 2001, Edward Elgar, Cheltenham.

'Housing Supply and the Effects of Stochastic Development Control', by Stephen Mayo and Stephen Sheppard, *Journal of Housing Economics*, **10**, 109-128 (2001).

'Review of *Economics of Cities: Theoretical Perspectives* by Jean-Marie Huriot and Jacques-Francois Thisse', by Stephen Sheppard, *Journal of Regional Science*, **42**, 423-427 (2002).

'The Welfare Economics of Land Use Planning', by Paul Cheshire and Stephen Sheppard, *Journal of Urban Economics*, **52**, 242-269, (2002).

'Income inequality and residential segregation: labour sorting and the demand for positional goods', by Paul Cheshire, Vasillis Monastiriotis and Stephen Sheppard, in R. Martin and P. Morrison (eds) *Geographies of Labour Market Inequality*, London: Routledge, 83-109, (2003).

'The Rise, Fall and Rise Again of Industrial Location Theory', by Philip McCann and Stephen Sheppard, *Regional Studies*, **37**, 6-7, 649-663, (2003).

'Taxes Versus Regulation: the Welfare Impacts of Policies for Containing Sprawl', by Paul Cheshire and Stephen Sheppard, in The Property Tax, Land Use and Land Use Regulation, edited by Dick Netzer, Edward Elgar Publishing, Cheltenham (2003).

'Introduction to Feature: The Price of Access to Better Neighbourhoods' by Paul Cheshire and Stephen Sheppard, *The Economic Journal*, **114**, F391-F396, (2004).

Published Papers, continued:

'Capitalising The Value Of Free Schools: The Impact of Supply Characteristics and Uncertainty' by Paul Cheshire and Stephen Sheppard, *The Economic Journal*, **114**, F397-F424, (2004).

'Land Markets and Land Market Regulation: Progress Towards Understanding' by Paul Cheshire and Stephen Sheppard, *Regional Science and Urban Economics*, **34**, 619-837, (2004).

'Land Use Regulation and Its Impact on Welfare' by Stephen Sheppard, Chapter 10 (pp 285-318) in *Urban Dynamics and Growth: Advances in Urban Economics*, edited by Roberta Capello and Peter Nijkamp, Elsevier, Amsterdam (2004).

'The Introduction of Price Signals into Land Use Planning Decision-making: a proposal' by Paul Cheshire and Stephen Sheppard, *Urban Studies*, **42**, 647-663, (2005).

'The Distributional Impact of Housing Discrimination in a Non-Walrasian Setting', by Ralph Bradburd, Stephen Sheppard, Joseph Bergeron, Eric Engler and Evan Gee, *Journal of Housing Economics*, **14**, 61-91, (2005).

'An Analysis of Ethnic Differences in UK Graduate Migration Behaviour', by Alessandra Faggian, Philip McCann and Stephen Sheppard, *Annals of Regional Science*, **40** (2), 461-471, (2006).

'Impact of Rent Controls in Non-Walrasian Markets: An Agent-Based Modeling Approach', by Ralph Bradburd, Stephen Sheppard, Joseph Bergeron and Eric Engler, *Journal of Regional Science*, **46**, 455-491, (2006).

'The Impacts of Terrorism on Urban Form' by S. Brock Blomberg and Stephen Sheppard, *Brookings-Wharton Papers on Urban Affairs*, p. 257-290, (2007).

'Some Evidence that Women Are More Mobile Than Men: Gender Differences in U.K. Graduate Migration Behavior', by Alessandra Faggian, Philip McCann and Stephen Sheppard, *Journal of Regional Science*, **47**, 517-539, (2007).

'Higher Education, Graduate Migration and Regional Dynamism in Great Britain', by Alessandra Faggian, Philip McCann and Stephen Sheppard, chapter 12 in *Universities, Knowledge Transfer And Regional Development Geography, Entrepreneurship and Policy,* edited by Attila Varga, Cheltenham: Edward Elgar (2009).

'Urban Structure in a Climate of Terror,' by Stephen Sheppard, chapter 7 in *Guns and Butter: The Economic Causes and Consequences of Conflict*, edited by Gregory D. Hess, Cambridge: MIT Press (2009)

'Understanding Place and the Economics of Space: The Contributions of Roger Bolton' by Stephen Sheppard *International Regional Science Review* **32**, 259-263 (2009)

'Measuring and Modeling Global Urban Expansion' by Stephen Sheppard, Chapter 7 in *Global Urbanization* edited by Susan Wachter and Eugenie Birch, Philadelphia: University of Pennsylvania Press (2011)

'In memoriam: Charles Leven (1928–2011)' by Paul Cheshire and Stephen Sheppard, *Papers in Regional Science*, **90,** 447-449, (2011).

'Do Planning Policies Constrain the Growth of Metropolitan Regions?' in *Metropolitan Regions Knowledge Infrastructures of the Global Economy*, Klaesson, J., Johansson, B., Karlsson, C. (Eds.), Springer, Berlin, (2013).

'Museums in the Neighborhood: the local economic impact of museums' by Stephen Sheppard, Chapter 8 in *Handbook of Economic Geography and Industry Studies,* Giarattani, F., Hewings, G., and McCann P.,(eds.), Edward Elgar Press, Cheltenham, (2013).

Published Papers, continued:

'The Economic Consequences of Cultural Organizations' by Peter Pedroni and Stephen Sheppard, Chapter 9 in *The Arts, New Growth, and Economic Development,* Michael Rushton (ed.), Brookings Institution Press, Washington, (2013).

'Measuring the Economic and Social Impact of Cultural Organizations' in *Community Development Investment Review*, **10(2)**, 43-48, December (2014).

Other Papers:

'Equilibria in Spatial Economies with a Continuum of Consumers', unpublished doctoral dissertation submitted to Washington University, 1984.

'Regional Shifts in Population and Changes in Metro-Nonmetro Boundaries in the U.S.', by Charles Leven and Stephen Sheppard.

'Structure of Demand and Equilibria in a Spatial Economy', Virginia Tech Working Paper.

'Historical Perspective on Population Change Within Urban Component Boundaries in the United States', by Charles Leven and Stephen Sheppard.

'Migration, Signaling, and the Efficiency of Regional Decline', by Barry McCormick and Stephen Sheppard.

'Unemployment, Regional Decline, and Efficient Policy', by Barry McCormick and Stephen Sheppard

'CAFE Economics: a note on the Limits and Effectiveness of Fuel Economy Regulation', by Stephen Sheppard and Adam Werner.

'Hedonic Perspectives on 'the' Price of Land: *Space, access, and amenity*', by Paul Cheshire and Stephen Sheppard.

'Higher education and migration across the Celtic frontier: mobility of Scottish and Welsh students', by Philip McCann and Stephen Sheppard

'The Impact of Rental Housing Vouchers: A non-Walrasian Simulation Analysis' by Ralph Bradburd, Stephen Sheppard, Kelsey Peterson and Evan Miller

'The Urban Growth Management Initiative: Confronting The Expected Doubling Of The Size Of Cities In The Developing Countries In The Next Thirty Years – Methods And Preliminary Results' by Daniel L. Civco, Anna Chabaeva, Shlomo Angel and Stephen Sheppard

'The Causes of Global Urban Expansion' by Stephen Sheppard, Shlomo Angel and Daniel L. Civco

'Buying into Bohemia: the impact of cultural amenities on property values' by Stephen Sheppard and Kay Oehler

'Infill versus Outspill: the microstructure of urban expansion' by Stephen Sheppard

'Informal Sprawl?' by Stephen Sheppard

'Demand for Museum Experience, Regional Development and Spatial Competition' by Stephen Sheppard and Nathaniel Walton

Other Papers, continued:

'The potential of social network analysis for research on the cultural sector' by Kay Oehler and Stephen C. Sheppard, Center for Creativity Community Development, working paper, available at www.c-3-d.org .

'The economic impact of non-profit organizations in Berkshire County' by Stephen Sheppard and Kay Oehler , Center for Creative Community Development, working paper, available at www.c-3-d.org .

'Network analysis and the social impact of cultural arts organizations' by Kay Oehler, Stephen C. Sheppard, Blair Benjamin, and Laurence K. Dworkin, Center for Creative Community Development, working paper, available at www.c-3-d.org .

'Culture and revitalization: The economic effects of MASS MoCA on its community' by Stephen C. Sheppard, Kay Oehler, Blair Benjamin, and Ari Kessler, Center for Creative Community Development, working paper, available at www.c-3-d.org .

'Mill town, factory town, cultural economic engine: North Adams in context' by Kay Oehler, Stephen C. Sheppard, and Blair Benjamin, Center for Creative Community Development, working paper, available at www.c-3-d.org .

'Shifting sands in changing communities: The neighborhoods of North Adams, Massachusetts' by Kay Oehler, Stephen C. Sheppard, Blair Benjamin, and Lily Li, Center for Creative Community Development, working paper, available at www.c-3-d.org .

'The Contribution of Housing Markets to the Great Recession' by Peter Pedroni and Stephen Sheppard, Williams College Working Papers in Economics, 2010.

'Localization of nonprofit enterprises in the US' by Stephen Sheppard, Williams College Working Papers in Economics, 2011.

'Why is Gentrification a Problem?' by Stephen Sheppard, Center for Creative Community Development, working paper, available at www.c-3-d.org, 2012.

'Culture Shocks and Consequences: the connection between the arts and urban economic growth' by Peter Pedroni and Stephen Sheppard, Williams College Working Papers in Economics, 2012.

'Private Schools and Urban Prosperity' by Stephen Sheppard, Williams College Working Papers in Economics, 2013.

'Culture Concentrations: the spatial structure of arts nonprofits' by Stephen Sheppard, Williams College Working Papers in Economics, 2013.

'Fatal Attraction: health care agglomeration and its consequences' by Michael Hellstern and Stephen Sheppard, Williams College Working Papers in Economics, 2014.

'Spatial Concentration of Industry in China' by Stephen Sheppard and Dan Leng Zhao, Williams College Working Papers in Economics, 2015.

Honors and Awards:

Royal Economic Society Prize for 2004 (awarded for best paper published during the year in the *Economic Journal*, shared with Paul Cheshire)
Herman H. Lehman Fellow at the Oakley Center for the Humanities and Social Sciences, Williams College, 2004-05
Fellow, Weimer School of Advanced Studies in Real Estate and Land Economics, Homer Hoyt Advanced Studies Institute, 2006

Research Interests:

Urban Economics and Housing Markets
Theory of Spatial Economies and Land Markets
Impacts of Cultural Organizations
Microeconomic Theory
Public Finance
Environmental and Natural Resource Economics
Economics of cultural organizations

Teaching Interests:

Urban and Regional Economics
Microeconomics
Local Public Finance
Microeconomic Theory

Research Experience:

Staff Economist, Olympus Research Corporation, Salt Lake City, Utah, 1976-1977.

Participant, Summer Program for Young Scientists, International Institute for Applied Systems Analysis, Laxenburg, Austria; research with the Human Settlements and Services Group, 1979.

Senior Research Officer, Department of Economics, University of Reading, Reading, England. Participated in ESRC funded project 'The Economic Consequences of the British Planning System: A Pilot Study', 1984-85.

Consultant, International Bank for Reconstruction and Development: The World Bank. Prepared research report concerning the effects of stochastic regulatory behavior of planners on land use and housing with emphasis on the experience of Thailand, Korea, and Malaysia, 1989-90.

Consultant, International Bank for Reconstruction and Development: The World Bank. Preparing analysis for Policy Research Division on the Effects of Fiscal Constraints and the Endogenous Determination of Public Servant Quality, 1994-95.

Visiting Scholar, International Monetary Fund Research Department, Spring 1995, January 1996.

Academic Visitor, London School of Economics, Houghton Street, London, 1996-97

Consultant for the World Bank, collaborated on study and preparation of a report on the causes, consequences and management of urban growth in developing countries, focusing on San Salvador, El Salvador, (2002).

Consultant for the Inter-American Development Bank, investigated and prepared report on policy alternatives for support of social rental housing in Sao Paulo, Brazil, (2002-2003).

Consultant for CHF International, coordinated preparation of survey and analysis of data to investigate the economic benefits of emergency shelter provision, (2004).

Founder and Director, Williams Center for Creative Community Development, a research center focused on understanding the role of the cultural sector in promoting economic development and community revitalization, (2004 – present).

Research Funding:

The Development of a Microsimulation model for Analysing the Impact of Planning on Housing Choices, Co-Principal Researcher, grant from the U.K. Department of Environment, Transport, and the Regions, 1997-98.

Recipient of curriculum development grant as part of Award for the Integration of Research and Education (AIRE) from the National Science Foundation (NSF) to Oberlin College, for development of curricular modules to train and assist students in undertaking hedonic analysis of property markets, 1998-99.

Lincoln Institute of Land Policy, Visiting Fellowship. To collaborate with Paul Cheshire on research project *'The Mediating Role of Land and Housing Markets in Urban Areas'*, $5000, Autumn 2000.

A Center for the Study of Arts and Culture-Based Community Development: A Planning Grant Proposal, in collaboration with Joe Thompson, MASS MoCA, submitted to the Ford Foundation, funded for $28,000, 2003.

The Urban Growth Management Initiative: Confronting the Expected Doubling of the Size of Cities in the Developing Countries in the Next Thirty Years, in collaboration with Shlomo Angel, NYU, submitted to the Research Committee of The World Bank on behalf of The Urban Development Division, funded for $230,000, 2003-04.

The Center for Creative Community Development: Implementation Proposal, in collaboration with Joe Thompson, MASS MoCA, submitted to the Ford Foundation, funded for $585,000, 2004-2008.

The Causes and Consequences of Urban Expansion, National Science Foundation Award SES-0433278, $425,000, 2004-2007.

Museums and Community: evaluating the economic and social impact of museums, Institute for Museum and Library Services, $334,384, 2006-2009.

Analysis of property value impacts and evolving social networks around cultural spaces. Leveraging Investments in Creativity (LINC), $100,000, 2009-10.

Economic impact, visitor participation and social networks in space for change. Leveraging Investments in Creativity (LINC), $166,000, 2011-12.

Culture, Clusters and the Causal Connection of the Arts to Economic Prosperity, National Endowment for the Arts ArtWorks Research Program, $25,000, 2012-13.

Teaching Experience:

Adjunct faculty, MA program, Webster University, Webster Groves, Missouri; 1979-1981

Instructor in Economics, Washington University; 1980

Senior Teaching Associate in Economics, Washington University; 1980-1981

Assistant Professor of Economics, Virginia Polytechnic Institute and State University; September 1982 - December 1983, and April 1985 to June 1990.

Visiting Assistant Professor of Economics, Washington University in St. Louis; July 1989 to June 1990

Assistant Professor of Economics, Oberlin College; July 1990 to May 1993
Associate Professor of Economics, Oberlin College; June 1993 to 1998
Professor of Economics, Oberlin College; June 1998 to July 2000

Professor of Economics, Williams College, July 2000 to present
James Phinney Baxter III Professor of Public Affairs, Williams College, July 2002 to 2006
Robert F. Wright Class of 1952 Professor of Economics, Williams College, July 2006 to 2009
Class of 2012 Professor of Economics, Williams College, 2009 to present

Courses taught:

Advanced Microeconomic Theory
Current Issues in Economics: Fiscal Federalism
Current Issues in Economics: Land Markets
Economics of Business Decisions
Economics of Land, Location, and the Environment
Environmental Economics
History of Economic Thought and Policy
Managerial Economics
Microeconomic Theory I, II (graduate level)
Price and Allocation Theory (undergraduate level)
Principles of Economics
Public Economics
Remote Sensing and Geographic Information Systems
Seminar in Environmental and Natural Resource
Theory of Exchange and Production
Transportation Economics
Urban Economics
Economics of Culture and the Arts
Urbanization and Development
Cities, Regions and the Economy
Economic Analysis of Housing Markets
Acquiring Art

Other Professional Activities:

1990 - 2000	Environmental Studies Program Committee, Oberlin College
1997 – 1999	Educational Technology Committee, Oberlin College
1998 – 2000	Research and Development Committee, Oberlin College
2001 – 2002	Ad hoc Committee on the role of athletics, Williams College
2002 – 2004	Center for Environmental Studies Advisory Committee, Williams College
2002 – 2003	Information Technology Committee, Williams College
2003 – 2004	Committee on Educational Priorities, Williams College
2003 – 2014	Director, Williams College Center for Creative Community Development
2007 – 2010	Chair, Department of Economics, Williams College
2012 – 2013	Faculty Lecture Committee, Williams College
2013 – 2014	Chair, Library Advisory Committee, Williams College

1986 – 2005	Proposal Referee, National Science Foundation
1987-89, 1993-94, 1996-97	Referee, *Urban Affairs Review*
1987 – 1990	Referee and Committee Member, Transportation and Economic Analysis Subcommittee, National Academy of Science
1990	Referee, *Contemporary Policy Issues*
1990, 1992, 1994, 2000	Referee, *Journal of Economic Education*
1991	Reviewer, *Harper Collins Publishers*
1991	Reviewer, *Wadsworth Publishers*
1993 – 2010	Referee, *Journal of Urban Economics*

Other Professional Activities, continued:

1993, 1999, 2003 – 2007	Referee, *Regional Science and Urban Economics*
1994, 1996, 1997	Referee, *The Economic Journal*
1998	Referee, *The American Sociological Review*
1998	Referee and Consultant, *The Oxford University Press*
2000	Referee and Panelist, National Science Foundation ITR/SOC program
2004	Referee, *Journal of Health and Social Behavior*
2000	Referee, *Australian Economic Papers*
2001	Referee, *Regional Studies*
2006, 2011-2012, 2016	Referee, *Environment and Planning*
2002 – 2011, 2013, 2016	Referee, *Urban Studies*
2009 – 2010	Referee, *Economic Development and Cultural Change*
2011	Referee, *International Journal of Urban Sustainable Development*
2012 – 2015	Referee, *Journal of Cultural Economics*
2012 – 2015	Referee, *Annals of Regional Science*
2012	Referee, *Letters in Spatial and Resource Sciences*
2012 – 2013	Referee, *National Tax Journal*
2013 – 2014	Referee, *Journal of Economic Geography*
2013 – 2014	Member of ArtWorks Research Grant referee panel, *National Endowment for the Arts*
2015	Referee, *Review of Economics and Statistics*
2016	Referee, *Public Finance Review*

1994 – 1995	Consultant and Expert Witness for plaintiff's counsel in case of Marie DeSario, *et al.*, v. Industrial Excess Landfill, Inc., *et al.*
1995	Consultant and Expert Witness for plaintiff's counsel in case of Friendly's Ice Cream Corporation v. L.S. Piping & Mechanical Services
1996-1998	Consultant and Expert Witness for counsel in case of Sherrill *et al.* v. Hess, *et al.*
1996-2001	Consultant and Expert Witness for plaintiff's counsel in case of Clara M. White v. Aztec Catalyst Co., *et al.*
1998-2001	Consultant and Expert Witness for plaintiff's counsel in case of Randal O. Lowe, *et al.* v. Sun Refining and Marketing Co., *et al.*
1999-2000	Consultant and Expert Witness for plaintiff's counsel in case of Dalespring Corporation v. Bullington*Gleason, *et al.*
1999-2001	Consultant and Expert Witness for plaintiff's counsel in case of William Rehoreg, et al. v. Stoneco, Inc.
2002-2003	Interamerican Development Bank, consultant providing report on "Social Rental Housing in Sao Paulo, Brazil: the present situation contrasted with the European and North American Experience"
2003-2004	CHF International, coordinated preparation of survey and analysis of data to investigate the economic benefits of emergency shelter provision
2007-2013	Consultant and expert analysis for the New York State Attorney General's Office in the matter of relicensing Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3)
2011-2014	Consultant for The Housatonic Railroad Company, Inc., preparation of economic analysis of the impacts of proposed passenger rail service to Connecticut and Massachusetts
2012	Consultant and expert analysis in the case of Jewell v Aaron's, Inc. involving data analysis to determine share of employees who had been improperly compensated
2012-2015	Consultant and expert analysis for Janet, Jenner & Suggs, LLC, German Rubenstein LLP and Brannon and Associates in *Re: Behr Dayton Thermal Products, LLC*; Case No. 03:08-cv-0326 (WHR)(MJN)
2012-2015	Consultant and expert analysis for Janet, Jenner & Suggs, LLC, German Rubenstein LLP and Brannon and Associates in the case of *Smith, et al. v. Honeywell, et al.*; Case No. 2:10-cv-03345 (ES)(SCM)

Other Professional Activities, continued:

2015-2016 Consultant and expert analysis for Earthrise Law Center in the case of *Bostek, et al. v Entergy Nuclear Generation Company, et al.*; Case No. 13 MISC 479028 (RBF)

Presentations and Invited Seminars:

1982 Midwest Mathematical Economics meetings, St. Louis, Missouri
1983 Winter meetings of Econometric Society, San Francisco, California
1984 Theory workshop, Warwick University, Coventry, England
1985 World Congress of the Regional Science Association, Rotterdam, Netherlands
1988 Economics workshop, Northern Illinois University, Dekalb, Illinois
1988 Economic theory workshop, University of Reading, Reading, England
1989 European meetings of Econometric Society, Munich, West Germany
1990 Western Regional Science Association, Molokai, Hawaii
1990 Public Finance and Resource Economics workshop, University of Illinois, Urbana, Illinois
1990 North American Meetings, Regional Science Association, Boston, Massachusetts
1991 European Meetings, Regional Science Association, Lisbon, Portugal
1992 Microeconomics workshop, Virginia Polytechnic Institute and State University, Blacksburg, Virginia
1992 Tenth World Congress of the International Economics Association, Moscow, Russian Republic
1992 AREUEA/USC International Conference on Real Estate and Urban Economics, Los Angeles, California
1992 North American Meetings of the Regional Science Association International, Chicago, Illinois
1993 Southern Economics Association, New Orleans, Louisiana
1994 Participant in Roundtable on Educational Technology in Economics, sponsored by Addison Wesley at Allied Social Science Meetings, Washington, D.C.
1996 American Real Estate and Urban Economics Association, International Housing Markets, Orlando, FL.
1996 Graduate seminar, London School of Economics.
1997 European Real Estate Society, Berlin, Germany.
1997 The Northeast Universities Development Consortium Conference
1997 Lincoln Institute of Land Policy
1998 American Real Estate and Urban Economics Association, at Allied Social Sciences Meetings, Chicago, IL.
1998 University of Glasgow, Urban Economics seminar
1998 North American Meetings, Regional Science Association, Santa Fe, New Mexico
1999 Departmental Workshop, U.S. Air Force Academy
1999 European Regional Science Association, Dublin, Ireland
1999 North American Meetings, Regional Science Association, Montreal, Canada
1999 Department seminar, Case Western Reserve University
2000 Department seminar, Williams College
2000 World Congress of the Regional Science Association, International, Lugano, Switzerland.
2000 Lincoln Institute of Land Policy, internal staff seminar
2000 North American Meetings, Regional Science Association, Chicago, Illinois
2001 Pacific Regional Science Organization (PRSCO) Meetings, Portland, Oregon
2002 Lincoln Institute of Land Policy, Director's Conference, Scottsdale, Arizona
2002 Lincoln Institute of Land Policy, Conference on the Analysis of Urban Land Markets and the Impact of Land Market Regulation
2002 North American Meetings of the Regional Science Association, San Juan, Puerto Rico
2002 World Bank Inaugural Urban Research Symposium, Washington, DC
2003 North American Meetings, Regional Science Association, Philadelphia, PA
2003 Centre for Economic Policy Research/European Science Foundation/Centre for Economic Performance Conference *Topics in Economic Geography: A Dialogue Between Economists and Geographers*
2003 Inter-American Development Bank Conference on Housing Policy, Sao Paulo, Brazil
2004 North Atlantic Regional Council, Society for College and University Planners, Williamstown, MA
2004 North American Meetings of the Regional Science Association, Seattle, WA

Presentations and Invited Seminars, continued:

2004 Allied Social Sciences Associations annual meetings, AREUEA Session San Diego, CA
2005 Americans for the Arts National Conference, Austin, TX
2005 Summer Institute of Arts Management, Amherst and North Adams, MA
2005 Social Theory, Politics and the Arts National Conference, Eugene, OR
2005 Grantmakers in the Arts National Conference, Pasadena, CA
2005 University of Reading, Economics Department Workshop, Reading, England
2005 CESifo Conference on "Guns and Butter: The Economic Causes and Consequences of Conflict", Munich, Germany
2006 Allied Social Sciences Associations, AREUEA Session, *The Causes and Consequences of Urban Expansion*. Boston, MA
2006 Homer Hoyt Advanced Studies Institute, *The Causes of Global Urban Expansion and the Consequences for Commercial Property*, Palm Beach, Florida
2006 The Earth Institute at Columbia University, workshop on "Rethinking the Estimation and Projection of Urban and City Populations", *What Can We Learn From Remotely-Sensed Data?*, New York, NY
2006 World Bank Policy Research and Economic Modeling Conference (PREM), *Panel Discussion on Global Urban Expansion*, Washington, DC.
2006 Lincoln Institute of Land Policy, Conference on Land Policies for Urban Development, *Comments on: Community Land Trusts and Affordable Housing*, Cambridge, MA.
2006 The World Bank Seminar, *Modeling the Causes of Urban Expansion,* Washington, DC.
2006 Boston University Arts Research Initiative Symposium on Research, Policy and Practice: Building Capacity in Creative Communities, *Panel Discussion on Research and Theory,* Boston, MA
2006 Lincoln Institute of Land Policy, *The Causes and Consequences of Urban Expansion,* Cambridge, MA.
2006 Keynote Address at NAREA 2006 Post-Conference Workshop, "Opportunities and Challenges Facing the Rural Creative Economy", *The Creative Economy and Quality of Life in Small Cities*, Mystic, CT.
2006 19th Advanced Summer School in Regional Economics, European Regional Science Association Summer Institute, *Four Lectures on GIS and Spatial Econometrics*, Groningen, Netherlands
2006 The Association for Cultural Economics International (ACEI) meetings, *Buying into Bohemia: the impact of cultural amenities on property values,* Vienna, Austria.
2006 Keynote Address at New York State Economics Association, *The Causes and Consequences of Global Urban Expansion*, Albany, NY
2006 Brookings-Wharton Conference on Urban Affairs, *The Impacts of Terrorism on Urban Form*, Washington, DC.
2006 Grantmakers in the Arts "Research at Eye Level" pre-conference, co-organized and hosted conference, co-presented two papers: *North Adams and Mass MOCA: evaluating the impact of creative community development* and *Measuring New England's Creative Economy – New England Cultural Database and Counting on Culture Tool*, North Adams, MA.
2006 North American Meetings of the Regional Science Association, *Infill versus Outspill: the microstructure of urban expansion*, Toronto, Canada.
2006 MIT Urban/Real Estate Seminar, *Infill versus Outspill: the microstructure of urban expansion*, Cambridge, MA.
2006 Lincoln Institute of Land Policy, Symposium on Valuation Techniques and Land Value Assessment, *Panel Discussion Participant*, Cambridge, MA
2007 Homer Hoyt Advanced Studies Institute, *Infill versus Outspill: the microstructure of urban expansion*, Palm Beach, Florida
2007 Ford Foundation Shifting Sands Initiative Peer Learning Conference, *Telling Your Story: C3D Toolkits for Advocacy and Evaluation,* Honolulu, Hawaii
2007 Innovations for an Urban World: a Global Urban Summit, *Measuring and Modeling Global Urban Expansion*, Bellagio, Italy.
2007 Social Theory, Politics and the Arts Annual Meeting, *Using Network Analysis to Evaluate the Social Impact of Cultural Arts Organizations*, New York City, NY
2007 Urban Anchors in the 21st Century, conference at the University of Pennsylvania, *A Tale of Two Cities: North Adams, Massachusetts and Beacon, New York,* Philadelphia, PA
2007 North American Meetings of the Regional Science Association, *Buying into Bohemia: The Impact of Cultural Amenities on Property Values,* Savannah, GA

Presentations and Invited Seminars, continued:

2008 North American Meetings of the Regional Science Association, *Museums in the Neighborhood*, Brooklyn, NY
2009 Meetings of the Allied Social Sciences Associations, *Informal Sprawl?*, San Francisco, CA
2009 North American Meetings of the Regional Science Association, *Demand for Museum Experience, Regional Development and Spatial Competition,* San Francisco, CA
2010 Ford Foundation/Leveraging Investments in Creativity, Space for Change Convening, *Building a community through culture: measuring and visualizing MACLA's impact*, Los Angeles, CA
2010 National Endowment for the Arts, conference on Arts and Livability: The Road to Better Metrics, *Infusing aesthetics into property value measurement,* Washington, DC
2010 North American Meetings of the Regional Science Association, *The Contribution of Housing Markets to the Great Recession,* Denver, CO
2011 45th annual meeting of the Berkshire Regional Planning Commission, keynote address, *Nonprofit clusters in the innovative economy*, Pittsfield, MA.
2011 Ford Foundation/Leveraging Investments in Creativity, Space for Change Convening, *Space for Change tools for understanding*, New Orleans, LA
2011 North American Meetings of the Regional Science Association, *Localization of nonprofit enterprises in the US,* Miami, FL
2012 Charles Leven Memorial Conference, *Culture Shocks and Consequences: the connection between the arts and urban economic growth,* Washington University in St. Louis, St. Louis, MO
2012 Brookings/NEA *Arts, New Growth Theory, and Economic Development* symposium, *Culture Shocks and Consequences: the connection between the arts and urban economic growth,* Brookings Institution, Washington, DC
2012 Greater Boston Urban and Real Estate Economics Seminar (GBUREES), *Culture Shocks and Consequences: the connection between the arts and urban economic growth,* Boston Federal Reserve Bank, Boston, MA
2012 North American Meetings of the Regional Science Association and the Urban Economics Association, *Culture Shocks and Consequences,* Ottawa, Canada
2013 American Real Estate and Urban Economics Association section of the Allied Social Sciences Association 2013 meetings, *Private Schools and Urban Prosperity*, San Diego, CA.
2013 North American Meetings of the Regional Science Association and the Urban Economics Association, *Culture Concentrations: the spatial structure of arts nonprofits,* Atlanta, Georgia
2014 Workshop on Cultural Heritage and Urban Revival, Tinbergen Institute, VU University of Amsterdam, *Cultural Agglomeration and its Implications,* Amsterdam, Netherlands
2014 North American Meetings of the Regional Science Association and the Urban Economics Association, *Fatal Attraction: health care agglomeration and its consequences,* Bethesda, MD.
2015 Invited presentation at the Weimer School meetings of the Maury Seldin Advanced Studies Institute at the Hoyt Group, *Urbanization and Informal Development: A Study Using Satellite Images*,West Palm Beach, FL.
2015 North American Meetings of the Regional Science Association and the Urban Economics Association, *Spatial Concentration of Industry in China*, Portland, OR..
2016 URSI Seminar, University of Groningen, *The Fatal Consequences of Health Care Agglomeration*

EXHIBIT 2

Notes on the Berkshire Museum Structural Deficit

Stephen Sheppard

A. Introduction

Managing and operating a regional museum with a diverse collection is not easy. No museum of this nature brings in sufficient revenue from admission sales, memberships, facility rentals and on-site retail to cover all of the costs of acquiring and caring for its collection. This means that a museum has to rely upon grants, earnings from endowment funds, contributions and other donative resources to keep the doors open and to make a good faith effort to undertake the activities and satisfy the goals identified as its mission. These pressures can be particularly acute if the museum lacks a significant benefactor committed to sustaining the institution, or if it is located in a region with a declining population base or economy.

Confronted with these challenges, museums have turned to a variety of strategies. More aggressive fund raising and grant seeking, adjustment of programming and collection emphasis, and improved marketing and provision of more popular and "non-curatorial" activities. In some circumstances, museums may also contemplate deaccessioning of portions of the museum collection, particularly when those collections have significant market value.

Beyond the philosophical and legal objections that have been raised concerning this approach, there are at least two economic objections that have been raised. Di Gaetano and Mazza (2017)[1] have argued that while deaccessioning might provide an economic benefit for the museum that liquidates a portion of its collection, such behavior imposes a cost on other museums by creating an environment in which individuals are less likely to donate works of art to any museum. Since few museums have collection development funds that can compete with private collectors, this will severely curtail the flow of art works into museums where they are more broadly accessible to the public. This creation of a cost imposed on others, called by economists an *externality*, is analogous to pollution or road congestion, in which one person or organization takes an action that is beneficial to itself, but fails to consider the implications for others. The result is an outcome that is less efficient for all and requires either government or legal action or severe social pressure to rectify.

A second objection has been identified by Srakar (2015)[2] who argues that permitting unrestricted deaccessioning generates excessive "agency costs" for museums. These are excessive costs in

[1] Luigi Di Gaetano and Isidoro Mazza, 2017, "Better an egg today than a hen tomorrow" on the implications of deaccess policies for donations to museums, *Journal of Cultural Economics,* **41**, pp 237–258

[2] Andrej Srakar, (2015) Deaccessioning and Agency Costs of Free Cash Flow in Manager's Hands: A Formal Model, *Economic and Business Review*, **16** (3), pp 225-246

monitoring and disciplining management, or in providing incentives for museum management to act in the interest of stakeholders of the museum. Such costs are analogous to the costs stockholders have in disciplining a for-profit firm's management to keep them from spending excessive amounts on lavish offices and private aircraft. These are costs associated with getting managers to act as "agents" of the stockholders and are therefore called "agency costs". Essentially Srakar argues that raising revenues through seeking donative revenues or creative programming is irritating and difficult. Managers will therefore be tempted to eliminate these unpleasant tasks by creating large endowments through deaccessioning. This permits them to engage in the more enjoyable parts of operating the museum and avoid the more difficult tasks, even though it damages the extent to which the museum serves the interests of its stakeholders.

These economists and other scholars of museum management understand, of course, that museums and their managers must be permitted to adapt to changing needs and interests, as well as to respond to financial crises that threaten the continued operation of the institution. For this reason, deaccessioning is generally thought to be acceptable if the funds are used to purchase new objects for the collection (thus adapting the collection and programming to new interests of stakeholders) or in the event of financial crises that pose an existential threat to the institution. This understanding in turn raises a difficult problem for evaluating the appropriateness of any proposed deaccession plan. Organizations or their managers may exaggerate the extent of the financial difficulties as a rationale for deaccessioning portions of a collection, and in so doing may be failing to serve interests of stakeholders or failing to account for the costs imposed on other museums.

In July of 2017, the Berkshire Museum announced a "New Vision" plan that would reorient its collection placing greater emphasis on science and natural history, and less emphasis on art. It would undertake a significant remodeling of its building and install a series of new approaches to displaying its collection. These changes would be paid for through a major deaccessioning of 40 of the most valuable works of art in the Museum's collection. The sale of these works was expected to generate revenues of \$50-\$60 million that would be used to pay off existing debt, provide for an endowment of approximately \$40 million, and cover the costs of construction and implementation of the plan.

The Museum has justified this sale primarily through two arguments. First, that the revised orientation of the Museum would improve the benefits generated by the museum for the community, and second that the Museum does in fact face an existential crisis in the form of a "structural deficit" that could force it to close in as little as 6 years. As expected, the proposed deaccession plan generated a firestorm of criticism (as well as some public support). Considerable confusion has remained concerning the nature and severity of the deficit. This confusion has not been reduced by the limited efforts the Museum has made to explain its calculations or the alternative approaches to dealing with the deficit short of deaccessioning.

In what follows, I try to address and provide some answers to four questions that seem central to the controversy: (1) How has structural the deficit been defined? (2) Has the deficit been properly measured? (3) Does the Museum have a real problem? (4) What alternative approaches might be feasible?

B. Questions

1. How has the Berkshire Museum defined its deficit?

The Museum and its representatives have stated on several occasions that it faces an "existential crisis" due to a "structural deficit". At first, how the museum was calculating this deficit was not clearly explained, although from the beginning the museum said that it amounted to about $1.15 million per year average over the 10 years from FY 2007 through FY 2016. In response to questions from the media and others (I wrote to Van Shields and then met with some members of the museum board and representatives of the auditors) the museum confirmed that this was the average of the gap between what they characterize as operating revenues (contributed income plus earned income) and operating expenses.

This explanation was then confirmed in a posting added to the museum's web site[3] in early September. This discussion identifies operating revenues as consisting of earned and contributed revenues, and notes that such revenues exclude capital campaign donations and investment income, because those are included in non-operating revenues.

The explanation goes on to identify the total gap between operating revenues and operating expenditures over the 10 year period 2007-2016 as summing to $11,879,292. While this would represent an average deficit of more than $1.18 million per year, the discussion immediately after the chart presenting this figure refers to the deficit as "... an average structural operating deficit of approximately $1.15 million annually over the past decade." This slightly smaller figure matches earlier communications from the museum where, for example, the Berkshire Eagle[4] notes that "... the museum's structural deficit, including depreciation, has averaged $1.15 million each year."
The discrepancy between the figures discussed on the museum's web page is not explained, nor the exact way in which depreciation is brought into the calculation.

Examination of the museum's Independent Auditor's Report and Financial Statements, available from the Attorney General's office provides some insight but does not fully clarify the calculation. I have reviewed all these reports for 15 years starting in FY 2001 and running through FY 2016. The most useful beginning point is the page labeled "Statement of Activities" for each year. This page provides some detail for the contributed and earned income, as well as the operating expenses for each year. Figure 1 below shows the top section of this page for the report covering FY 2016.

[3] A Summary of the Berkshire Museum's Finances, available at https://berkshiremuseum.org/newvision/finances/
[4] Carrie Saldo, "Berkshire Museum to sell works by Calder, Church and Durrie", *The Berkshire Eagle*, July 24, 2017, available at http://www.berkshireeagle.com/stories/berkshire-museum-to-sell-works-by-calder-church-and-durrie,514605

TRUSTEES OF THE BERKSHIRE MUSEUM

STATEMENT OF ACTIVITIES

For the Year Ended June 30, 2016

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total 2016	Comparative 2015
REVENUE, GAINS AND OTHER SUPPORT					
Contributed income					
Government grants	$ 27,302	$ ---	$ ---	$ 27,302	$ 22,000
Foundations and corporations	431,246			431,246	423,625
Special events, net	45,143			45,143	71,971
Memberships	211,938			211,938	227,775
Annual appeal	129,050			129,050	91,674
Other contributions	147,225			147,225	231,700
In-kind contributions	985			985	2,581
Total contributed income	992,889	---	---	992,889	1,071,326
Earned income					
Admissions	174,928			174,928	217,478
Museum shop (net of $52,169 cost of goods sold)	53,736			53,736	54,516
Facility rental	5,858			5,858	9,703
Adult programs	100,321			100,321	97,056
Education programs	85,293			85,293	72,298
Traveling exhibitions	15,000			15,000	3,500
Other earned income	5,258			5,258	6,156
Total earned income	440,394	---	---	440,394	460,707
TOTAL REVENUE, GAINS AND OTHER SUPPORT	1,433,283	---	---	1,433,283	1,532,033
EXPENSES					
Program Services	2,174,030			2,174,030	2,207,820
Management and General	385,719			385,719	371,978
Fund-raising	330,973			330,973	406,116
TOTAL EXPENSES	2,890,722	---	---	2,890,722	2,985,914

Figure 1: FY 2016 Operating Revenues and Expenses for Berkshire Museum

The details of the contents are not essential, but I would draw attention to a couple of items that are **not** included in these accounts. As noted above and reported on the website discussion of museum finances, investment income is not included in the figures that are used to measure the "structural deficit" of the museum. These revenues, as well as other funds coming into the museum, are reported as part of non-operating activities reported in the lower portion of the Statement of Activities. This portion is shown in Figure 2.

NON-OPERATING ITEMS					
21st Century Energy Project Capital contributions	---			---	248,417
Berkshire Museum Board Endowment contributions	33,463			33,463	80,108
Capital donations	---	511,670		511,670	1,642,855
Strategic planning grant	---	239,517		239,517	50,000
Strategic planning expense	(142,006)			(142,006)	(50,000)
Investment income, net	(47,114)	---	5,110	(42,004)	311,895
Endowment contribution	---		2,000	2,000	2,000
Release endowment spending	3,200		(3,200)	---	---
Releases of capital contributions	346,506	(346,506)	---	---	---
Total non-operating activities	194,049	404,681	3,910	602,640	2,285,275

Figure 2: FY 2016 Non-operating Items for Berkshire Museum

If we want to reproduce the museum's calculations of its structural deficit, we could examine past Auditor's Reports, and record the operating revenues and expenditures, and calculate the average. This is more easily said than done, because prior to 2013 capital campaign and capital contributions were included as part of operating revenue (as contributed income). Prior to 2010 investment income was included as part of operating revenues as well. Some of these changes may have been made to conform to accepted accounting standards and practices, other features of the accounts conform to desires of the board and director of the museum. In order to make these earlier figures comparable with the more recent reports, I have taken out the capital contributions and capital campaign donations, and also the investment income, and obtained the figures reported in Table 1.

Table 1: Operating revenues, expenditures and deficit

Fiscal Year	Revenues	Expenditures	Deficit
2002	$883,614	$1,901,815	-$614,657
2003	$1,865,318	$2,100,004	-$369,268
2004	$1,990,014	$2,036,746	-$644,498
2005	$3,306,711	$2,612,790	-$277,637
2006	$4,151,077	$2,518,178	-$493,551
2007	$5,505,770	$2,594,458	-$600,367
2008	$5,138,100	$2,870,538	-$1,122,955
2009	$1,121,823	$2,658,581	-$1,095,728
2010	$1,238,790	$2,414,856	-$1,213,066
2011	$1,334,972	$2,345,914	-$1,040,602
2012	$1,360,573	$2,524,139	-$1,174,796
2013	$1,389,856	$2,712,100	-$1,322,244
2014	$1,436,805	$2,587,873	-$1,151,068
2015	$1,532,033	$2,985,914	-$1,453,881
2016	$1,433,283	$2,890,722	-$1,457,439
Ave 2002-2016			-$935,450
Ave 2007-2016			-$1,163,215

The figures reported in Table 1 show that the average deficit from what the museum is calling operating revenues and operating expenditures over the period 2007-2016 is slightly more than $1.16 million. This does not exactly replicate the figure presented on the museum's web site but does fall between the two figures that have been communicated by the museum. Subsequent communication with the board confirmed that this was "essentially" how they had calculated the "structural deficit."

It is not clear why the average should be limited to the period since the severe recession that began in 2007. I have presented in the final row of Table 1 the average "structural deficit" over the 15 year period covering all of the data I examined from 2002 through 2016.

2. Is the deficit identified by the Berkshire Museum correctly measured?

There is no accepted definition of "structural deficit" in describing the economics of non-profit organizations. The term has been used in public finance to identify the situation where a government's expenditures exceed revenues under all or almost all circumstances, so that even averaging over the course of the business cycle the government is not raising sufficient tax revenue to cover expenditures.

Sterling and Francine Clark Art Institute
STATEMENT OF ACTIVITIES
For the Year Ended June 30, 2016

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total 2016	Comparative Total 2015
REVENUE, GAINS AND OTHER SUPPORT					
Investment support for operating activities (Note 4)	$ 11,703,717	$ 231,051	$ 3,959,661	$ 15,894,429	$ 15,202,398
Museum shop, net (Note 12)	260,538			260,538	161,924
Admissions	2,225,133			2,225,133	1,454,088
Exhibition fees	24,516			24,516	102,756
Public education programs	55,242			55,242	19,260
Grant income	56,500	2,204,000		2,260,500	2,509,977
Contributions	234,680	3,892,909		4,127,589	2,391,973
Membership-Friends of the Clark	1,378,608			1,378,608	1,448,382
Occupancy, Event and other income	341,757			341,757	319,923
Net assets released from restrictions:					
Satisfaction of program purposes	6,517,975	(2,558,314)	(3,959,661)	---	---
TOTAL REVENUES, GAINS AND OTHER SUPPORT	22,798,666	3,769,646	---	26,568,312	23,610,681
EXPENSES					
Program Services					
Research and academic programs	3,844,946			3,844,946	4,375,110
Museum programs	11,150,762			11,150,762	11,044,198
External relations	2,271,023			2,271,023	3,036,756
TOTAL PROGRAM EXPENSES	17,266,731			17,266,731	18,456,064
Support Services					
Management and general	4,599,623			4,599,623	4,455,391
Fund-raising	1,137,756			1,137,756	1,357,420
TOTAL SUPPORT EXPENSES	5,737,379			5,737,379	5,812,811
TOTAL EXPENSES	23,004,110	---	---	23,004,110	24,268,875

Figure 3: Statement of Activities for the Clark Art Institute, FY 2016

A measurement of financial deficit should satisfy at least two goals. First, it has to provide a reasonably accurate picture of the current state of the organization including helping managers to anticipate crises. Second, it has to provide a yardstick that can be consulted to assess progress of the organization and effectiveness of actions taken to stabilize finances or correct imbalances.

In my view, the current **calculation of the museum's deficit fails to satisfy these two goals and does not accurately represent the problems faced by the museum**. To understand why, begin with a comparison of the Statement of Activities taken from the FY 2016 Financial Report for the Clark Art Institute, presented above in Figure 3 above.

This report is prepared by the same firm (Adelson and Company) that prepares the audited Financial Reports for the Berkshire Museum. In the figure, I have outlined in red the very first row, labeled "Investment support for operating activities" and showing a contribution to revenues of more than $15.8 million. This reflects the fortunate situation in which the Clark finds itself, with a large endowment of funds held as long-term investments from which it can draw annually to contribute to operating revenues. The sum listed for FY 2016 represents about 4.9% of the value of the Clark's long term investments, consistent with the institution's spending policy listed in Note 4 of the Financial Report and reproduced in Figure 4 below.

Spending Policy

The Board directed spending policy is a 5% annual draw of a calculated average of the past 12 quarters of market value of investments. For the years ended June 30, 2016 and 2015, the annual draw to support operations and museum programs including board designated reserve funds for exhibitions and publications, and funding for capital improvements and equipment was $15.89 million and $15.20 million, respectively, while the annual draw to support a reserve fund available for art and library acquisitions was $350,000 and $500,087, respectively. Additional draws for non-operating expenses have been made with Board approval.

Figure 4: Endowment Spending Policy for Clark Art Institute

While the Clark is very fortunate to have such a large endowment to provide a generous annual draw, the policy of spending approximately 5% of endowed funds for additions to the collection, care of the objects, and other operating expenses is standard among non-profit museums. Indeed, the Berkshire Museum itself has a similar policy identified in its annual report and reproduced below in Figure 5.

Spending Policy

The Board, as part of approving the annual budget, follows a spending policy to utilize a portion of the net asset value of the investment portfolio to support operating and program expenses, major maintenance, capital expenditures, and for securing, protecting and preserving the Museum's collections. The annual spending objective is to use "up to 5%" of a three-year rolling average market value of the Museum's investments. If budgetary funding requirements demand the use of principal, or more than the target maximum of 5%, it would require a super-majority (2/3) vote of the Trustees to override the "up to 5%" spending objective.

Figure 5: Endowment Spending Policy for Berkshire Museum

Not only does the Berkshire Museum have a similar policy, but the goal of building an endowment that can contribute towards the expenses of museum operations is identified as an important goal and central rationale for the proposed deaccessioning and sale of art works from the Museum's collection.

The Berkshire Museum does have a modest endowment at present. The value of the endowment is presently about $7.4 million (the value of long term investments listed in the FY 2016 annual report)[5]. This is down from a maximum of over $9.2 million in FY 2011 at the time the current director of the Museum arrived. The Museum has been drawing from endowed funds over the past decade (and more) as mentioned in the summary of finances report on the Museum's web site. Unlike the reporting practice for the Clark, however, these funds (even a "normal" 5% annual draw from these funds) are not represented as a source of revenue in calculating the Museum's "structural deficit".

The result is that the Museum's structural deficit does not accurately or correctly represent the current financial status of the Museum. **Even if all of the art works proposed for deaccessioning were sold and the Museum's endowment was increased by $40 million dollars, there would be no impact on the structural deficit as it is currently being measured because the Museum's financial reports do not consider a normal draw on endowment funds as part of available resources.**

For this reason the "structural deficit" as currently calculated **does not present an appropriate measure of the Museum's difficulties.**

3. Does the Berkshire Museum have a problem?

While the Berkshire Museum's structural deficit as presently calculated does not represent an appropriate measure of the Museum's difficulties, this does not imply that there are no problems in the Museum's current financial situation. The first step to assessing the magnitude of these problems is to construct a better measure of the average annual deficit arising in museum operations.

While different viewpoints could be expressed about how best to achieve this, I begin by following the example set by the Clark's financial reports, assuming a 5% annual draw of endowment funds held as long term investments should be regarded as a normal resource available to the Museum. I take a particularly conservative approach assuming the draw is based only on the long-term investments ($6.9 million in FY 2016) rather than the full representation of endowment funds that would include short-term investments and cash. This keeps the annual draw consistently below 5%. Table 2 below presents the results of this calculation for FY 2002 through FY 2016.

Table 2 below shows that this alternative calculation of the deficit is considerably smaller, averaging about $667 thousand per year over the past 15 years. Even this calculation does not provide a perfect representation of the Museum's situation, because it makes no allowance for drawing 5% from short term investments and cash, nor any "extraordinary" draws on endowment funds that can, as noted in the Museum's spending policy illustrated above, provide more than a 5% draw with the approval of a

[5] As with many aspects of the Museum's situation, there has been some lack of clarity on this as well. The Berkshire Eagle article of July 24 cited above reports that the endowment is "about $8.6 million". I take the smaller amount as reported in the audited Financial Report.

super-majority of the board. Such high rates of draw may be appropriate in a financial emergency, but they should truly be extraordinary and for a well-managed institution not take place except in rare and unusual circumstances.

Table 2: Alternative Calculation of Museum Deficit

Fiscal Year	Earned and Contributed Income	Draw From Endowment	Revenue	Expenditures	Deficit
2002	$1,287,158	$184,911	$1,472,069	$1,901,815	-$429,746
2003	$1,730,736	$198,217	$1,928,953	$2,100,004	-$171,051
2004	$1,392,248	$201,441	$1,593,689	$2,036,746	-$443,057
2005	$2,335,153	$191,952	$2,527,105	$2,612,790	-$85,685
2006	$2,024,627	$184,322	$2,208,949	$2,518,178	-$309,229
2007	$1,994,091	$209,794	$2,203,885	$2,594,458	-$390,573
2008	$1,747,583	$116,939	$1,864,522	$2,870,538	-$1,006,017
2009	$1,562,853	$101,975	$1,664,828	$2,658,581	-$993,753
2010	$1,201,790	$412,072	$1,613,862	$2,414,856	-$800,994
2011	$1,305,312	$454,270	$1,759,582	$2,345,914	-$586,332
2012	$1,349,343	$244,528	$1,593,871	$2,524,139	-$930,268
2013	$1,389,856	$376,343	$1,766,199	$2,712,100	-$945,901
2014	$1,436,805	$409,310	$1,846,115	$2,587,873	-$741,758
2015	$1,532,033	$395,013	$1,927,046	$2,985,914	-$1,058,868
2016	$1,433,283	$345,968	$1,779,251	$2,890,722	-$1,111,471
Ave 2007-2016					-$856,593
Ave 2002-2016					-$666,980

A significant advantage of this alternative calculation is that it better reflects the current state of the Museum's difficulties. Museum officials have repeatedly stated[6] that they would have to cease operating in "six to eight years," a figure apparently obtained by dividing the total endowment of $7.4 million by the erroneously calculated annual deficit of $1.15 million. The new calculations show that there is a problem, but not quite as dire as claimed by the Museum in an effort to justify the sale of the artworks.

Another advantage of the alternative calculation is that it can provide a measure of progress towards stability. If we take the magnitude of the museum's deficit s being approximately $667 thousand per annum, then rebuilding the endowment with an addition of $13.34 million would provide an increase in the normal annual contribution towards operations of sufficient magnitude to eliminate the average deficit. In this sense the Museum's difficulties, while real, are seen to be a "$14 million problem" and not a "$60 million problem". This smaller deficit can probably be managed without the proposed deaccession and sale of the artworks.

[6] Carrie Saldo, "After two weeks, Berkshire Museum plan to sell art has supporters and detractors" *The Berkshire Eagle*, July 29, 2017.

4. What alternative approaches exist for managing the problem?

Museum board members and executive officers have complained over the past two months that those critical of the sale of artworks have offered no solutions. I think we can see from the above observations the outlines of a potential approach for the museum. It would consist of implementation of something like the following:

- **Adopt a more transparent approach to calculating the Museum's financial difficulties and present these for public discussion.** At a minimum, reporting a normal draw of 5% of endowment funds as part of the normal funds available for operation should be implemented. The category of "non-operating" activities could perhaps be relabeled as "non-operating and extraordinary". Then the additional draw on endowment funds above and beyond the 5% could be reported as part of this category. Since these larger levels of use of endowment funds must be approved by the board and are used for museum operations, it is appropriate to include them as part of the "Statement of Activities" report as done for other institutions.
- **Suspend plans for major remodeling of the Museum building and collection display** until after the Museum's financial situation is stabilized. Attempting to embark on a major revision of focus for the institution in the midst of a solvable financial crisis is not conducive to good judgment and decision making. Clear evidence for this observation is the lack of public discussion of deaccession possibilities prior to announcement, the lack of detailed budget estimates for museum operations after implementation of the plan, including the lack of estimates of visitation levels and donor response to the plan.
- **Embark on a sustained capital campaign** to increase the size of the endowment.
  - While this will be a difficult task, increasing the endowment by $14 million is an achievable goal, probably requiring 5-10 years.
  - In a press release dated July 24 the Museum notes that the Feigenbaum Foundation has made a $2.5 million lead gift bringing the total raised towards the "New Vision" plan to $5.4 million. This doesn't include the $1 million from anonymous donors who sought a pause to the sale of art. These observations suggest a capital campaign of the magnitude I suggest could be successful.
- **The Museum should undertake an evaluation of its asset management strategy and consider alternatives that could increase the yield on long-term investments.** This will be increasingly important as the endowment grows. I have not presented a detailed analysis of the management of the Museum's long term investments, but a quick examination of the reported investment returns and gains suggests an average return that is substantially less than could be achieved by investing in a simple portfolio of S&P 500 index funds. It is an unfortunately common mistake of institutions who have modest endowments to place those funds with active managers who then proceed to underperform broad market indices.
- **Once financial stability of the Museum has been restored, the Board and the community can revisit the "New Visions" plan** to consider whether to pursue implementation. It may well be that an alternative direction for the museum with greater emphasis on science and natural history would generate greater benefits for stakeholders. It may also be, as several critics have argued, that the art works proposed for deaccession could play an important role in this

alternative vision. One thing is almost certain: such decisions are likely to be improved when they are taken in full public consultation and without the rush to make the sale a *fait accompli* in the face of public and professional opposition.

C. Summary and concluding remarks

Operating a small non-profit museum is not an easy task. I don't want to be interpreted as saying that solving the financial problems of the Berkshire Museum will be simple, quick or straightforward. Fund raising is challenging, but that is in the nature of the business. It is surely very tempting to contemplate forgoing the fund raising, deaccessioning and selling the most valuable art works in the Museum's collection, and embarking on the implementation of a "New Vision".

Unfortunately, the Museum's current plan for pursuit of this "New Vision" will be extremely controversial if it proceeds, and could damage both the Museum's wider reputation and the Museum's relations with a key segment of supporters in the community. The observations offered above will, I hope, be taken in the spirit of trying to clarify and contribute to the discussion.