Presidential Task Force to Examine Divestment

Final Report
Executive Summary

Background

Barnard's Board of Trustees established the Presidential Task Force to Examine Divestment at its meeting on December 9, 2015. The goal of the Task Force is to "enable the Investment Committee and, subsequently, the Board of Trustees, to make an informed decision about whether to seek divestment from companies that extract, process, distribute, and sell fossil fuels." The Board decided to establish the Task Force as a result of an effective student campaign, begun in earnest in the spring of 2015, to convince Barnard to divest its endowment from fossil fuel companies.

The issue of fossil fuel divestment is complex. It entails consideration of the financial and fiduciary responsibilities of the Board to grow the value of Barnard's endowment and the moral and ethical issues surrounding Barnard's responsibility to do its part to mitigate the impacts of climate change, including divesting our endowment from companies engaged in activities that are detrimental to the environment.

Barnard's Endowment

Barnard's endowment, as of June 30, 2016, totaled xxxxx. Of this amount, xxx or xxx% is invested in fossil fuels. The endowment is meant to provide benefits for both current and future generations and is entirely funded by private gifts and donations. Each year, Barnard draws 5% of the average of the past 3 years of returns for the operating budget. The endowment draw represents 6% of gross revenue. Barnard's endowment is managed by Investure, LLC, a consortium of 14 non-profit colleges, universities, and foundations. Our endowment is co-mingled with those of our 13 other partners and Investure

Climate Change

The implications of climate change on the environment is the paramount issue facing us today. The consumption of fossil fuels are ingrained in modern society and, indeed, has fostered and driven innovation since the industrial revolution. But such consumption has come at a cost. The emission of excessive greenhouse gases, primarily carbon dioxide (CO2) and methane has warmed global temperatures causing such phenomena as rising sea levels, melting polar ice caps, increasing and increasingly strong tropical storms and ocean acidification, which can have devastating effects on society The World Economic Forum lists climate change as a top global risk that will exacerbate poverty in the developing world. The White House's 2015 National Security Strategy cites climate change as an "urgent and growing threat to national security."

Ordinarily, when the actions of some individuals result in uncompensated environmental damages to others, it falls to governments to alter the incentives to engage in such activities. By contrast, greenhouse gases are global pollutants whose impacts are felt independently of the location of the source. As a result, local regulation or taxation of such emissions will not solve local damages. Mitigating climate change requires governmental action and international treaties, however, as of now, no binding agreement has yet been reached on the terms of such

arrangements and governments have been reluctant to pass necessary regulations to limit extraction of fossil fuels or their emissions.

The Global Divestment Movement

The global divest movement was borne both to pressure governments to act, to change the behavior of fossil fuel companies either through impacting their bottom line or by stigmatizing them and changing market norms. The global movement has grown over the past few years with educational institutions, pension funds, private foundations, faith based groups and NGOs controlling total assets of nearly $3.4 trillion all divesting from fossil fuels in some form.

Key Conclusions

The Task Force arrived at the following conclusions:

- Climate change is real, caused by the extraction and combustion of fossil fuels, and is adversely affecting the environment and exacerbating inequality in the developing world, particularly impacting women. The Task Force believes that *Barnard, as a good global citizen, needs to do its part to mitigate the impact of climate change.* Divestment from fossil fuel companies is one action the Board can take but it is not the only one. A concerted effort to reduce Barnard's carbon footprint is an action that he Board should endorse regardless of where it comes out on the divestment issue.

- The divestment debate is wide-ranging; for every argument in support of divestment there are counterarguments against. *The Task Force weighed these arguments and believes that while divestment will not have a material impact on the behavior of fossil fuel companies it has symbolic power that, when combined with a chorus of the other prominent institutions who have divested, may be the best way to pressure governments and fossil fuel companies to act responsibly to stem the impact of climate change. The Task Force believes that as the premier women's college in the nation, Barnard can and should have a strong voice on this issue.*

- A decision to divest from fossil fuels does risk increasing demands to divest from other sectors – a concern expressed by many of our peer institutions -- *but the Task Force believes the scale of climate change and the existence of a prominent global movement make this unique; the Board should not feel compelled to reproduce their decision on divestment the endowment in regards to other issues in the future.*]

- [*The Task Force also believes that while Barnard's endowment is small, making any investment in companies that deny the realities and implications of climate science or work against evidence-based research is inconsistent with Barnard's mission as an academic institution dedicated to the free flow of ideas.*]

- Barnard, like many institutions, has reacted differently to social and political issues and divestment has not been consistently used as a tool to address such issues. Barnard is confronting the issue of fossil fuel divestment at a time when Environmental, Social, and Governance (ESG) factors are becoming more prevalent in screening investments and investment managers. The Board should consider whether the endowment can

reasonably be walled off from social questions it confronts. [*The Task Force believes that the Investment Committee should require Barnard's endowment manager to prioritize ESG factors when screening investment managers for future investments.*]

- *A decision to divest must be balanced with the need to protect and grow the endowment. The Task Force recognizes that a robust endowment is a critical component of Barnard's financial health and the Board should take no action that would undermine its growth.* Even institutions that chose to divest did so knowing that a small percentage of their endowment may still include fossil fuels if necessary to protect financial returns.

- A detailed understanding of how divestment could impact the endowment is critical to making a sound decision. There are contradictory views about whether divestment will have any impact at all on the endowment. We do know that those schools who chose not to divest predicted that their endowments would experience financial losses. But those schools who chose to divest predicted there would be no financial impact to their endowments. The Task Force analyzed 4 investment scenarios and concluded that while the S&P 500 excluding energy index has performed well over the past 10 years, a basket of fossil free index funds performed more poorly, and the differences between the four scenarios were not so dramatic as to lead the Board to a particular answer. *The Task Force concludes that it is impossible to predict whether divestment will have a financial impact on the endowment and that without a firm projection the Board will have to weigh other issues to determine if divestment is the right strategy for Barnard.*

- Notwithstanding where the Board comes out on divestment, *the Task Force believes that Barnard should pursue a more robust climate action plan.* Reducing the demand for fossil fuels is a critical way that Barnard can help mitigate the impact of climate change. While Barnard has been a leader in NYC in implementing sustainable initiatives, the Task Force believes that Barnard can do more. [*The Task Force recommends that the President appoint a Sustainability Officer who will be responsible for leading efforts across the community to reduce Barnard's carbon footprint, reduce the amount of landfill waste created on campus, and create a culture where sustainable behavior becomes second nature.]*

Summary of the Divestment Debate

Facing the global challenge of climate change is daunting and leads to skepticism when considering what Barnard can do to mitigate its impacts, especially when Barnard is a consumer of fossil fuels. Clearly Barnard cannot solve the problem of climate change but, as a global citizen and global academic leader, it should consider how it can do its part. Some, like the student group Divest Barnard, who convinced the Board of Trustees to seriously review the issue of divestment, argue that we have a moral imperative to act. But the issues are complicated and nuanced, engaging such questions as:

- How to ensure our endowment is aligned with our values?
- Whether divestment will have any impact to change the behavior of fossil fuel companies or to pressure governments to act to mitigate the impacts of climate change? and
- Whether and how divestment will impact the value of our endowment in the future?

The Task Force reviewed how the divestment debate has unfolded over the past few years and concluded that there is no single argument compelling enough, on its own, to govern our approach. The arguments surrounding this issue are complex, nuanced, and sometimes contradictory; those who have gone before us have justified their decisions for different reasons.

Proponents of divestment argue that because of the detrimental impacts of climate change on society, we have a moral imperative to act. Since we both use fossil fuels and profit from investments in fossil fuel companies, we are contributing to the problem. Given this, we should work to align our investments with our values, especially since climate change impacts are felt more heavily by women in the developing world. Aligning our endowment to our values is especially true if we place a high value on academic integrity; shedding investments from companies that have worked to deny climate science would certainly align our endowment with our approach to science and the spirit of open debate. But there are counter-arguments. Many institutions have argued that endowments should not be used to make political statements and view divestment as actually undermining a commitment to academic freedom; Harvard notes, for example, that inserting politics into the endowment presents risks to the "independence of the academic enterprise."

One question that pervades the debate over divestment is whether it will have any impact at all in changing the behavior of fossil fuel companies. Because divestment entails a transfer of ownership in the secondary market for securities, it will not have an impact on the financial bottom line of fossil fuel companies – there will be a buyer for the assets that we sell thus resulting in no net loss to the company. Some even argue that fossil fuel companies are large investors in alternative energies so punishing them by divesting will be counterproductive. That said, one cannot have it both ways: If divestment will have no impact on the financial bottom line of fossil fuel companies it can't at the same time have an impact on investments in alternatives.

Proponents of divestment concede that divestment will not have direct financial impact, but note that it has symbolic power and the "chorus" of institutions who divest will ultimately influence governmental and private sector behavior. One observer argued that public action by influential organizations can create "immediate waves" within the broader movement and an Oxford University study points to the pressure the global divestment movement can place on governments to take action to mitigate climate change by stigmatizing the industry. But some schools turned this notion on its head arguing that precisely because they believe divestment would be a purely symbolic act with no practical impact it is not worth pursuing.

A critical question facing the Board is whether divestment will have a financial impact on Barnard's endowment. There is no definitive answer to this question. Some argue that excluding fossil fuel investments will hurt returns given that the energy sector is a consistent part of the overall market while others assert that investments in fossil fuels are risky given the likelihood that oil and gas reserves will become "stranded" when governments begin to limit extraction to mitigate climate change impacts. Those colleges and universities that predicted lower future returns based on notional past performance excluding fossil fuels rejected divestment. Those institutions who believed that past performance is not a predictor of future returns and that continued investment in fossil fuels is risky were more inclined to pursue divestment. But in the end, the true impacts are not knowable to either camp.

Social Impact

As part of its work, the Task Force considered the overall context in which Barnard faces the issue of fossil fuel divestment and climate action more broadly. Fossil fuel divestment is not the first political or social issue that the College has faced. Indeed, Barnard, like all other educational institutions confronted such challenges as divestment from South African apartheid in the 1980s, from tobacco in the 1990s, from the Sudan in the 2000s, and most recently from private prisons and fossil fuels. The College has also faced other social issues, including the admittance of transgender students at Barnard, which has risen to the Board level decision. What is clear, is that through time, institutions, including Barnard, have reacted *in*consistently to these political and social challenges. Barnard, like many schools, chose to divest its holdings in companies invested in South Africa to protest apartheid but declined to do so for tobacco, Sudan, and other issues. So the notion that endowments should not be used to make political statements is not an iron clad rule.

What may govern decisions on how to act may have more to do with the scale and complexity of the problem. It is more difficult to divest from fossil fuels than it was for, say, South Africa apartheid. During the 1980s Barnard managed its own endowment and had direct holdings in companies making divestment an easier proposition. Today, Barnard's endowment is outsourced and its funds comingled with other partner institutions as part of a consortium making it more difficult if not impossible to divest from specific sectors under this model. Moreover, climate change and the role fossil fuels play in society is a more complex and pervasive issue than others we have faced with implications for the environment that impacts all of us. Future generations are likely to judge how we respond to the challenge much in the same way that our peers are being held to account for actions that took place even centuries ago.

Still, some – but clearly a minority -- of our peer institutions have found a way through the financial complexities to divest from fossil fuels. They did so at a time when the role of Environmental, Social, and Governance (ESG) factors in making investment decisions is becoming more prevalent than they were in, say, the 1980s. The importance of ESG is finding its way in US Government guidance; in 2015, the Department of Labor noted when considering retirement plans that "ESG factors may have an economic and financial value of the plan's investment" and one influential report highlighted the linkage between good ESG performance and financial performance.

Financial Implications for the Endowment

The key question the Board needs to consider is: will divesting from fossil fuels impact the financial value of the endowment over time? There is no good answer to this question. We looked at 5 possible scenarios both with and without fossil fuels. This analysis is entirely assumptions- driven; the 5 scenarios are therefore artificial but can help bound the upsides and downsides of the strategies. We also determined that it will be impossible to divest under the current consortium model so a decision to divest may also require a decision to change endowment managers. The options are:

- **Status quo**: Barnard's 10 year return as of June 30, 2016 projected into the next 10 years.
- **S&P 500 Excluding energy**: Using S&P ex energy 10-year returns and projecting this rate forward.

- **S&P 500**: Using the S&P 500 10 year returns (including energy) and projecting them forward.
- **Fossil free index**: Averaging the returns of 15 fossil free indexes and projecting returns forward.

Based on this assumptions-based analysis, the S&P 500 ex Energy and the S&P 500 itself represent the best options, leading to a notional net positive endowment growth over the next 10 years.

	Status Quo	S&P 500 Excluding Energy	S&P 500	Fossil Free Funds
10 year return (%)	6.80%	7.70%	7.40%	6.43%
10 yr. growth ($m)	+$198.4	+$233.5	+$222.8	+$183.7
10yr Cumulative growth (%)	+69%	+82%	+77%	+65%
Cumulative Change in spending	--	+$5.5m	+$3.7m	-$.2m

Investment Options for Consideration

The Task Force considered 5 divestment options for the Board's consideration:

- **Option 1: Status quo**; no divestment.
- **Option 2: Invest in Investure's Sustainability Fund**, but otherwise make no changes.
- **Option 3: Limit exposure to coal to .1% of the endowment**; revaluate whether to divest further in the future.
- **Option 4: Divest from coal and from companies that deny climate science** by word and/or by deed. Under this option, Barnard would accept investments in fossil fuel companies that affirm science by word and by deed. This option will be difficult to implement and will require a change in Barnard's endowment manager, as well as continued monitoring of fossil fuels companies behavior.
- **Option 5: Pursue full divestment**, reducing Barnard's exposure to fossil fuel investments to as close to zero as possible, while maintaining endowment returns. This option will require a change in Barnard's endowment manager.

Even if we divest, our holdings in private equity partnerships will remain until our obligations are complete. This means that Barnard's endowment will maintain some exposure to fossil fuels for the next 10-15 years.

Sustainability

Divestment one way to mitigate the impact of climate change; reducing demand for fossil fuels is another and may actually be more impactful with twin benefits of reducing Barnard's carbon footprint and, by reducing demand, potentially impacting the financial bottom line of fossil fuel companies. Even before the divest movement, Barnard made a commitment to sustainability; the Tripartite Committee on Sustainability, consisting of students, faculty, and staff has made great

strides in reducing Barnard's carbon footprint. But there is clearly more the College can do as part of a larger climate action strategy. The Task Force considered three options:

- **Option 1: Maintain the status quo**: This option continues the work of the Tripartite Sustainability Committee and sets future goals to further reduce Barnard's carbon footprint using baseline analysis completed by Gotham 360.

- **Option 2: Appoint a sustainability officer and change the culture**: In addition to option 1, this option creates a Sustainability Officer responsible for working with the community to establish goals and create a culture at Barnard that fosters sustainability and environmentally-conscious behavior.

- **Option 3: Establish a Sustainability Office at Barnard and set audacious goals**. Option 3 builds on option 2 by establishing a full Sustainability Office, with staff, that can focus the community's attention on issues of sustainability and set audacious goals that will make Barnard an environmental leader among its peers.

Recommendations?

SECTION 1
Introduction and Purpose

At its meeting on December 9, 2015, Barnard College's Board of Trustees ("The Board") voted to establish the Presidential Task Force to Examine Divestment[1]. The Board acted on the recommendation of its Investment Committee ("the Committee") who, one day earlier, discussed the issue of fossil fuel divestment with students representing the group Divest Barnard. The establishment of the Task Force is an expression of the desire by both students and the Board to have representatives from across the Barnard Community carefully think through and weigh all sides of the issues to enable the Board to make an informed decision, as charged in the Task Force charter. The Task Force is a testament to effective student activism and the students' willingness to engage Barnard's senior administration and the Board of Trustees on a critical issue that demands a thoughtful and nuanced response.

The Divest Barnard representatives made a compelling case to the Committee that the Board should thoughtfully consider divesting the College's endowment from fossil fuels. The students argued that climate change, caused by the extraction and use of fossil fuels, is a critical issue impacting the environment and exacerbating disparities in air quality, water accessibility, gender issues, and levels of poverty in the developing world. Knowing that a portion of Barnard's endowment is invested in fossil fuel companies, Divest Barnard sought to convince the Investment Committee that Barnard College has a responsibility to align its investments with its values.

The students' presentation to the Committee that December was the culmination of a 14 month-long student campaign to force the Barnard community to confront the issue of climate change and to forge Barnard's role in seeking to mitigate its impacts. Beginning in the Spring of 2015, the Chair of the Board of Trustees, President Spar, senior administrators, the Chair of the Board's Investment Committee, and select Trustees met with the students to discuss the issue. Through a series of productive conversations, all agreed that the issue was worthy of review and that the students should be permitted to address the Investment Committee directly. Among the requests Divest Barnard made to the Committee was the establishment of the Task Force along with a promise that the Board would to vote eventually on whether or not to divest from fossil fuels.

The Task Force met for the first time on February 16, 2016. Comprised of Trustees, faculty, students, and staff, the Task Force adopted a charter to guide its work.[2] In short, the charter stated that the purpose of the Task Force is to "enable the Investment Committee and, subsequently, the Board of Trustees, to make an *informed decision* about whether to seek divestment from companies that extract, process, distribute, and sell fossil fuels (emphasis added)."

The issue of fossil fuel divestment is a complicated one, worthy of careful study. It entails consideration of the financial and fiduciary responsibilities of the Board to grow the value of the

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[1] See appendix x for the text of the Board Resolution.

[2] See appendix x for a list of Task Force members and appendix x for the Charter.

College's endowment as well as the moral and ethical issues surrounding the support our endowment provides to companies engaged in activities detrimental to the environment. In creating the Task Force, Barnard's Board recognized the complexity of the issue and the serious implications any decision would have. Many of our peer institutions have wrestled, or are still wrestling, with these issues. Among all institutions there is consensus that a decision to divest must be balanced with the need to grow the value of the endowment so that future generations of students can derive its benefits. Several institutions have chosen to divest in some way; others have chosen not to but virtually all have taken actions to reduce their consumption of fossil fuels.

The question for Barnard is how, as an organization and a community, the College will respond to the situation of global climate change. Should the College take similar actions on this issue? What power does the College have (on its own or through a consortium), through divestment and other activities, to mitigate the problem of climate change? What are the positive and negative implications for the College in terms of mission, moral and ethical considerations given Barnard's "role as a global citizen," expected returns and the risk profile of the College's endowment? Here we consider the specific issue of divestment, along with a broader institutional response to the climate change issue.

SECTION 2
Barnard's Endowment Explained

Overview

Like all institutions of higher education, Barnard's endowment is a critical source of funding for both its current and future operations. The endowment consists of nearly 900 individual funds established for a variety of purposes and sourced from donor and Board of Trustee-designated funds. These individual funds are pooled and invested as a single endowment.
Because the endowment is an important component of Barnard's current and future financial health, Barnard and its investment manager take great care to invest the endowment to achieve returns that will enable future generations of Barnard students to realize its benefits. The College's objective for its endowment is to invest its assets in a prudent manner in order to achieve a long-term rate of return sufficient to fund a portion of its operating budget (on an annual basis) and to maintain its purchasing power by increasing its market value equal to or above inflation. The College uses a diversified investment approach incorporating multiple asset classes, strategies and managers.

Annual Endowment Spending

On an annual basis, the College draws funds from the endowment to fund approximately 7% of the College's operating budget. These drawn funds are known as the "Annual Endowment Spending". Annual endowment spending is set at 5% of the rolling three-year average of the endowment's market value as of December 31st. In Fiscal Year 2016, the annual endowment spending for the College's operating budget was $12.8 million. These funds are used to pay in part for faculty salaries, research, student internships, financial aid and other general operations of the College.

Outsourced Chief Investment Office

Historically, Barnard's endowment was managed in-house by the Board of Trustee's Investment Committee supported by a consultant and internal staff. In 2006, the Committee determined that the College needed additional resources to more efficiently manage the endowment and, more importantly, to bring the value of the endowment up to par with its peers. Barnard outsourced the management of its endowment to Investure, LLC, based in Charlottesville, VA. Barnard's Investment Committee provides oversight of Investure; Investure, in turn, functions as the College's Chief Investment Office and reports on performance and investment activities on a monthly basis and formally to the Board four times per year. Investure specializes in managing endowments of institutions of higher education and other non-profit organizations. Currently, Investure manages in excess of $12 billion for 13 clients: Barnard College, the Carnegie Endowment for International Peace, the Edna McConnell Clark Foundation, Colonial Williamsburg, the Commonwealth Fund, Dickinson College, the Houston Endowment, the Henry Luce Foundation, Middlebury College, the Skillman Foundation, Smith College, Trinity College and the University of Tulsa. The value of Barnard's endowment is the smallest of Investure's 13 clients. Because Investure functions as a consortium, Barnard's endowment is pooled with those of the other clients which gives us access to investment managers, investment opportunities and custodial structures that we would not otherwise have if the endowment was managed in-house. Because of this structure, Barnard does not directly manage its endowment portfolio. Rather we rely on Investure to identify and evaluate investment opportunities, make

investments, and choose investment managers on our behalf. We rely on Investure to balance risk while achieving the highest possible returns.

Endowment Market Value and Returns

The endowment has grown from $200.5 million at June 20, 2007 to $286.8 million at June 30, 2016. The endowment is invested in five primary asset classes: Global Equity, Alternative Equity, Private Equity, Fixed Income, and Cash. For the year ended June 30, 2016, Barnard had one year, three year and ten year returns totaling (4.5)%, 5.2%, and 6.8%, respectively. The Passive Benchmark used by Investure is defined as 75% MSCI All Country World Index and 25% BofA Merrill Lynch U.S. Treasury 7 to 10 year index (the "Passive Benchmark") At June 30, 2016, the Passive Benchmark had one year, three year and ten year returns of 0%, 6.4% and 5.6%, respectively.

Fossil Fuel Exposure

While Investure does not directly invest Barnard's endowment in fossil fuel companies, it does invest with managers via limited partnership funds who, in turn, may invest in fossil fuels as part of an overall portfolio. Given that energy companies represent xxx percent of the economy, many investment managers seek investments in fossil fuel companies largely to maintain portfolio diversity to manage risk and realize high returns. As of June 30, 2016, Barnard's exposure to fossil fuel investments represented x.x% of its total endowment portfolio. For this calculation, fossil fuel investments are defined as investments in the "Carbon Underground 200" which are defined as "the 200 largest public coal, oil, and gas companies based on estimates of the potential CO2 emissions of their reported reserves."[1] This is the list of companies recommended for divestment by the organization 350.org, however there are other targeted divestment strategies which we discuss in the [Options chapter] of this report.

[1] Definition from "The Carbon Underground 2015 Edition" (February, 2015)

SECTION 3
What is Climate Change and why is it important?

What is climate change?

Climate change is caused primarily by the greenhouse effect whereby gases, including carbon dioxide (CO_2) and methane, absorb and trap heat within the Earth's atmosphere. This natural process makes the earth habitable, for example compared to the moon, which has no atmosphere. Excessive CO_2 emissions, generated mostly from the burning of fossil fuels, deforestation, and land-use changes, has exacerbated the greenhouse effect to the point where global temperatures are rising.

In the natural carbon cycle, an equal amount of CO2 is both emitted to the atmosphere (i.e. through decomposition, respiration) and absorbed by carbon sinks (i.e. plants, oceans) so that a balance is maintained. However, since the Industrial Revolution, greater amounts of CO_2 have been emitted to the atmosphere while, at the same time, human activity has diminished carbon sinks—especially through deforestation, urbanization, and industrialization of agriculture—thus hindering the earth's natural ability to regulate carbon levels and contributing to warming global temperatures.

We are emitting CO_2 at increasing rates. For the last ten thousand years, atmospheric CO2 concentrations have remained stable at about 275ppm[i] (parts per million) and scientists consider 350ppm to be the upper limit for a safe concentration of atmospheric CO2. The current concentration of CO_2 in the atmosphere is estimated to be 405ppm[ii] and is increasing at a rate of 2ppm per year. Once emitted, CO_2 takes hundreds of years to recycle and accounts for 81% of current greenhouse gas emissions in the atmosphere today[iii]. Scientists estimate that even if global emissions of greenhouse gases ceased today, CO2 concentrations will continue to rise for decades if not centuries contributing to warming temperatures.[iv]

Since 1880, average global temperatures have increased 0.8°C (1.4°F) and scientists have observed a direct correlation between atmospheric CO2 concentrations and temperature over time. To mitigate the risks of extreme warming, the UN's Intergovernmental Panel on Climate Change directs governments to limit global warming to 2° C above pre-industrial levels with efforts to limit the rise to 1.5°C.

Impacts of Climate Change

The immediate environmental impacts of climate change include increasing global temperatures, rising sea levels, melting of polar ice sheets, increasing intensity of tropical storms, and ocean acidification. Warming may trigger "feedback loops" such as accelerated permafrost thaw that releases CO_2 and methane gas into the atmosphere, causing more warming. Many changes to environmental systems, including ocean warming, glacier melt, and permafrost thaw, will take centuries to reverse, limiting our ability to slow the increase in warming temperatures.

While these environmental changes are significant, they have equally significant implications for society. The World Economic Forum listed climate change as the top global risk in 2016 and worries that global increases in temperatures means higher risk of coastal and inland flooding,

storm damage, stress on infrastructure, heat waves, multi-decade droughts, widespread food shortages, species extinction, higher risk of civil conflict and increased poverty. The U.S. Department of Defense classified climate change as a top national security threat in 2015, and according to a 2015 White House National Security Strategy memo, "Climate change is an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basic resources like food and water."[v]

Global warming is of particular concern to populations that are already vulnerable. Communities with limited access to resources will be particularly impacted by increased resource scarcity, drought and famine. In areas where climate change exacerbates poverty, social upheaval, political instability, women are particularly vulnerable. Particularly relevant to Barnard, as an internationally recognized women's college, are the implications of climate change for women around the world. According to the U.S. Treasury Secretary, "the connection between gender and poverty remains, with women making up 70 percent of the one billion people who live in poverty worldwide"[vi] and the U.N. consultant IUCN (International Union for Conservation of Nature and Natural Resources) finds that 80% of climate change refugees will be women. [vii,viii,ix] A report by UN Women finds "women are more vulnerable to the effects of climate change than men—primarily as they constitute the majority of the world's poor and are more dependent for their livelihood on natural resources that are threatened by climate change. Furthermore, they face social, economic and political barriers that limit their coping capacity."[1]

Ordinarily, when the actions of some individuals result in uncompensated environmental damages to others, it falls to governments to alter the incentives to engage in such activities. This may be in the form of a regulation, such as restrictions on the presence of lead in gasoline or arsenic in drinking water and the ban on trans-fats in foods. Or it may be in the form of financial incentives, such as the requirement to purchase permits for sulfur dioxide emissions under the Clean Air Act Amendments of 1990.

Unlike lead and sulfur dioxide, however, greenhouse gases are global pollutants whose impacts are felt independently of the location of the source. As a result, local regulation or taxation of such emissions will not solve local damages. Thus reducing climate change requires international treaties, and no binding agreement has yet been reached on the terms of such arrangements.

Governmental responses to the threat of climate change

There have been attempts to coordinate an international governmental response to climate change beginning with the formation of the United Nations Framework Convention on Climate Change (UNFCCC), which was signed during negotiations in Rio de Janeiro in 1992. UNFCCC signatories have subsequently held meetings at annual Conferences of the Parties (COP) which have produced treaties such as the Kyoto Protocol and most recently the Paris Agreement at COP 21 in 2015. Parties to the various COP agreements have agreed to "[Hold] the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change."[x] The 2015 Paris Agreement

[1] http://www.uncclearn.org/sites/default/files/inventory/unwomen704.pdf

will enter into force upon ratification by 55 countries representing over 55% of greenhouse gas emissions (as of April, 2016, 34 countries representing 49% of global emissions had ratified the agreement[xi]). As international consensus grows around the 2-degree limit of warming, government implemented emissions restrictions are expected to strengthen. However, while we wait for a binding international solution, considerable damage is being done to the environment, including potentially irreversible changes.

Relationship between Limiting Emissions and Stranded Assets

To prevent a 2°C increase in global temperatures, countries will have to limit CO2 emissions and potentially forego extraction of 80% of known fossil fuel reserves. Thus, if governments are successful in achieving this warming limit, 80% of fossil fuel reserves will become "stranded assets" with lost economic value. Fossil fuel assets could be stranded by government policies such as carbon taxes, emissions caps, and subsidies on renewables but so far, governmental actions to control extraction or consumption of fossil fuels has been limited, leading to the rise in the global fossil fuel divestment movement. There are some exceptions. Norway, for example has already accounted for fossil fuels being stranded assets, leading to climate legislation including divestment from fossil fuels companies. Several Pacific Island Nations are in the process of negotiating a treaty that will ban fossil fuels, and "bind signatories to targets for renewable energy" for their national security and to comply with the Paris COP21 agreement. These examples illustrate the actions taken by nations globally that emphasize the need for drastic and immediate actions to mitigate runaway climate change, and economic downturns caused by stranded assets.[xii]

ENDNOTES

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[i] http://www.climatechangeauthority.gov.au/files/images/caps-and-targets-review-issue-paper/Nitrous%20oxide%20over%20the%20past%201000%20years.png

[ii] ppm is the abbreviation of parts per million. i.e.) in one million pounds of air there are 405 pounds of CO2 gas

[iii] https://www3.epa.gov/climatechange/ghgemissions/gases.html

[iv] https://www.carbonbrief.org/six-years-worth-of-current-emissions-would-blow-the-carbon-budget-for-1-5-degrees

[v] https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf

[vi] https://www.treasury.gov/press-center/press-releases/Pages/jl1901.aspx

[vii] http://www.iucn.org/content/gender-and-climate-change-policies

[viii] https://cmsdata.iucn.org/downloads/eng_version_web_final_1.pdf

[ix] http://www.gdnonline.org/resources/Gender%20and%20the%20climate%20change%20agenda%2021.pdf

[x] http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf

[xi] https://www.theguardian.com/environment/2016/apr/25/paris-climate-agreement-environment-climate-change-un

[xii] https://www.theguardian.com/world/2016/jul/14/pacific-islands-nations-consider-worlds-first-treaty-to-ban-fossil-fuels

SECTION 4
The Global Divestment Movement

In the face of inadequate actions by governments to mitigate climate change, the divestment movement has attempted to use the financial and reputational assets of institutions to build a chorus calling upon fossil fuel companies and policy makers to take action by stigmatizing fossil fuel companies and changing market norms. Fossil fuel combustion in the energy and transportation sectors is the main driver of global warming. As a result, the divestment drive has focused on those publicly traded companies who derive a significant portion of their revenues from the extraction and sale of coal, oil, and natural gas. While divestment by any single institution will be inconsequential to the finances of the fossil fuel industry, the global divestment campaign is largely seen as lever for institutions to push for change where government leadership has failed. Dan Apfel, a former executive director of the Responsible Endowments Coalition observes that divestment is a public action where prestigious institutions have the ability to "create immediate waves" within a broader movement and keeps climate change in the headlines. He goes on to say that "the institutional responses are often more noteworthy to the press and general public than the actions themselves." Similarly, because it is challenging for concerned citizens to identify concrete actions to address the absence of climate legislation, the divestment campaign empowers local level action with an emphasis on "collective community collaboration." [i]

Origins of the Global Divestment Movement

The Fossil Fuel Divestment campaign began in the United States in 2010 at Swarthmore College, launched in response to West Virginian coal miners' request that students at Swarthmore find a way to mobilize their college's resources to build awareness of the devastation caused by mountaintop removal. The Fossil Fuel Divest campaign became national in 2012 when environmental scholar Bill McKibben wrote a seminal article, "Global Warming's Terrifying New Math" for Rolling Stone magazine. In the article, McKibben argued that a global Fossil Fuel Divestment campaign was a necessary measure to put pressure on policymakers to take urgent action on climate change mitigation after decades of failed environmental lobbying strategies.

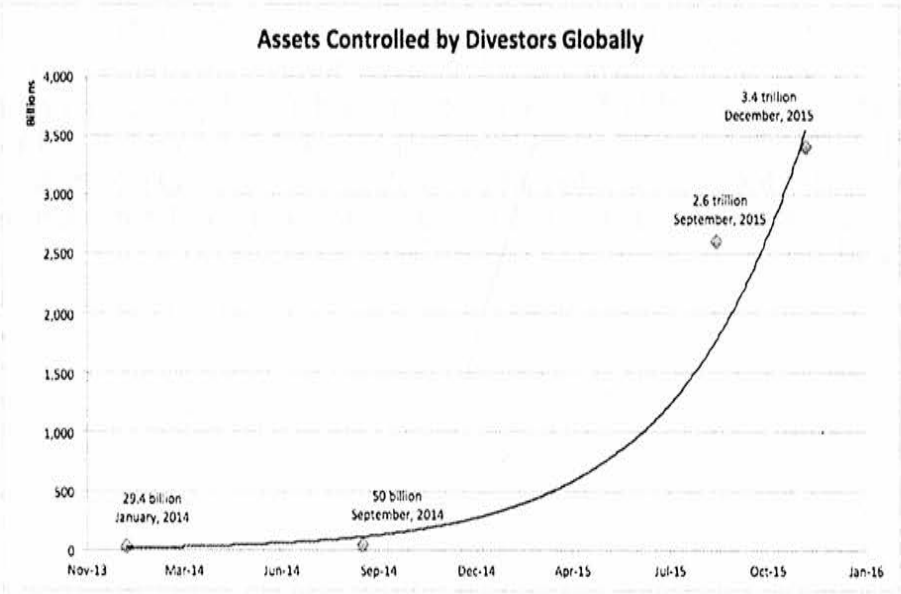
What does the global divestment movement seek to achieve?

The Fossil Fuel Divestment campaign is the culmination of 30 years of environmental groups putting pressure on individual fossil fuel companies and other polluters to "clean up."[ii] The campaign has increased public awareness of the issues of carbon emissions and increased scrutiny of high-emitting industries, and, as with previous divestment campaigns, it is largely seen as a last resort for institutions to push for change where government leadership has failed. As divestment analyst Daniel Apfel notes, "Rather than decreasing stock prices or influencing a specific company, the various entities involved in the fossil fuel divestment campaign aim to achieve many other goals" including leveraging the reputational power of colleges and universities to influence the fossil fuel industry, focus governmental institutions towards policy change, and ultimately to drive the transition to a fossil free economy through investment of capital into clean energy, and carbon sequestration technology.[iii,iv]

The Current State of the Campaign

Since 2014, the global Divestment Movement has grown by $3.35 trillion in terms of total value of assets controlled by institutions that have chosen to divest. As shown in Chart 1, "Fossil fuel restriction or divestment policies, tracked for the first time in 2014, accounted for $29.4 billion in money manager assets . . . at the beginning of 2014."[v] In September 2014, this value was $50 billion; in September 2015, total assets valued $2.6 trillion[vi] and in December 2015, total assets valued $3.4 trillion[vii] with divestment commitments increasing in the run-up to the 2015 Paris Climate Talks (COP 21). In addition to the growth of divestment commitments, the relative size of institutions that have chosen to divest has grown as has the diversity of such institutions. Arabella Advisors found that "in 2014, institutions pledging to divest held [an average of] $349 million in assets; today, such institutions hold [an average] of $9.8 billion in assets."[viii]

Chart 1 – Growth in assets controlled by Divsestors



Institutions that have committed to divest now include educational institutions, pension funds, foundations, government organizations, faith-based groups, NGOs, for-profit corporations, and individuals. Currently, "Faith-based Groups" and "Foundations" together account for 51% of institutional assets divested, followed by "Government Organizations", "Colleges, Universities and Schools", and "Pension Funds," which each account for 13% of divested assets[ix]. As of June 2016, 36 American Colleges and Universities have committed to either partial or full fossil fuel divestment, and there are active divestment campaigns on over 375 American college campuses[x]. Some campuses have already considered divestment and rejected it, while many others are currently deliberating.

The total assets that American colleges control (about $450 billion) is relatively small in the global market and on average, colleges and universities invest only 2% and 5% in fossil fuels (Barnard's exposure to fossil fuels totals xxx). However, divestment is also being undertaken by pension funds, which have more substantial market power. According to Oxford University's Smith School of Enterprise and the Environment (SSEE), "of the $12 trillion assets under

management among university endowments and public pension funds—the likely universe of divestment candidates—the plausible upper limit of possible equity divestment for oil and gas companies is in the range of $240-600 billion (2-5%) . . ."[xi] It is important to note that while these institutions and various divestors may sell their investments in fossil fuels, other investors in the market will buy them, therefore, this estimate of $240-$600 billion represents the value of assets which will move between investors, but may not all be removed from the market.

Barnard College's Divestment Campaign

The fossil fuel divestment campaign at Barnard began in the fall of 2012, when (then named) Barnard Columbia Divest was formed after the Bill McKibben 350.org "Do the Math Tour". In fall 2014, Barnard Columbia Divest split into the campus specific campaigns Divest Barnard and Columbia Divest for Climate Justice. In the fall of 2015 Divest Barnard became a Student Governing Board (SGB)-recognized campus organization and had several meetings with President Spar, Barnard Trustees, senior administrators and with representatives from Investure, LLC. Divest Barnard presented to the Board of Trustees in December of 2015 and the Presidential Task Force of Divestment was subsequently formed. In spring of 2016, the Task Force was launched with a panel to discuss divestment, and a Student Government referendum was passed with 96% of voting students in favor of divestment[xii]. As a result, SGA issued a statement of support[xiii] for fossil fuel divestment. In 2016, the Barnard Divestment campaign received two awards: the student-nominated Barnard Bold Award for Leadership and an SGA Leadership Award.

[i] http://www.bloomberg.com/news/articles/2015-09-22/fossil-fuel-divestment-movement-exceeds-2-6-trillion

[ii] Oxford's Smith School of Enterprise and the Environment (SSEE) "Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?" (2013)

[iii] Daniel Apfel "Exploring Divestment as a Strategy for Change" from the journal *Social Research* (Winter, 2015)

[iv] Oxford Smith School for Enterprise and the Environment (SSEE): "Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?" (2013)

[v] The Forum for Responsible and Sustainable Investment. "2014 Trends Report Executive Summary: 2014 Report on Sustainable and Responsible Investing Trends" (2014).
http://www.ussif.org/Files/Publications/SIF_Trends_14.F.ES.pdf

[vi] http://www.bloomberg.com/news/articles/2015-09-22/fossil-fuel-divestment-movement-exceeds-2-6-trillion

[vii] http://www.bloomberg.com/news/videos/2015-12-02/activist-investors-take-3-4-trillion-fossil-free-stance

[viii] Arabella Advisors, "Measuring the Growth of the Global Fossil Fuel Divestment and Clean Energy Investment Movement" (Sept. 2015).

[ix] Arabella Advisors

[x] http://gofossilfree.org/commitments/

[xi] SSEE "Stranded Assets and the Fossil Fuel Divestment Campaign" (2013) page 12.

[xii] http://columbiaspectator.com/news/2016/01/31/sga-fossil

[xiii] http://columbiaspectator.com/news/2016/02/23/sga-looks-create-proposal-alternative-winter-break-housing-policy-issues-statement

SECTION 5
Fossil Fuel Divestment: The Debate

Barnard is not the first institution to face the issue of fossil fuel divestment; many of our peers have undertaken similar studies of the issue much in the same way Barnard is doing now. Arguments around divestment are both nuanced and contradictory and the potential financial implications of divestment are speculative, assumptions-based, and unclear. Institutions based their decisions on what they valued most and how they reconciled a desire to be responsive to action on climate change while protecting financial returns to their endowments. Most of our peer institutions have chosen not to divest but agree that combating climate change is an imperative.

In our view there are three key questions surrounding fossil fuel divestment:

- What role should an institution's mission and values play in its investment strategies?
- Will divestment have a material impact combating climate change?
- Is divestment a risky investment strategy?

What follows is our effort to outline the key arguments around these questions, some supporting divestment while others argue against it. Table 1 at the end of this section summarizes the arguments and counter-arguments in this debate.

What role should values play in an Institution's investment strategy?

The relationship between an institution's values and its investment strategies plays a central role in the divestment debate. Proponents make a case that there is a moral imperative to combat climate change and that institutions should align their investments with their values. But opponents are reluctant to use their endowments to make political statements and are worried that divesting from fossil fuel companies is hypocritical when we rely so heavily on their products. Finally, there is a serious concern that, notwithstanding views on the moral imperative, fossil fuel divestment will strengthen arguments to divest from other social causes, thus cannibalizing endowments. But here too, the slippery slope argument is not held by all.

Combating climate change is a moral imperative: Of all of the arguments for divestment, moral and ethical considerations seem paramount. The moral center of the divestment campaign is the belief that, as members of society, we all have an ethical responsibility to limit destruction to the future of the planet and its inhabitants. To uphold this ethical responsibility, institutions must take all actions available to them to support climate change mitigation. Investments in fossil fuel companies represent a moral issue that divestment can at least partially address. Even when institutions assume that divesting may have no practical impact on the financial bottom

line or behavior of fossil fuel companies, in notable cases the ethical motivation to divest has won out.

The moral argument goes like this: Fossil fuel companies have a financial interest in extracting fossil fuel reserves from the ground that would release enough carbon to increase the earth's temperature above the 2°C threshold that the scientific community considers safe. Rising global temperatures will have serious impacts on the environment with adverse effects on vulnerable populations, particularly women. While Barnard, like the rest of the world, has benefited from advances in society driven by fossil fuels, and are currently consumers of them, the costs of continued, unfettered use of fossil fuels are becoming too high. Moreover, the argument goes, by investing in fossil fuel companies institutions like Barnard both support the industry's destructive practices and profits from them.

The moral or ethical argument is echoed by several institutions on both sides of the debate. Union Theological Seminary (UTS) chose to divest in 2014 noting that they have "a moral obligation to no longer profit from the production of fossil fuels." Likewise, the University of Mary Washington, which chose to divest in 2016, argues that the "ethical concern at the center of the [global divestment movement] is the . . . future habitability of the planet Earth in the face of incontrovertible evidence that greenhouse gas emissions from the use of fossil fuels are escalating climate change." Finally, Pitzer College, who divested in 2014, explained that "Climate change is an existential threat, warranting bold and urgent action. The continued exploration for fossil fuel resources is incompatible with progress towards a livable planet. . ."

Even those institutions that have chosen not to divest recognize the gravity of the problem and the clear link between fossil fuel combustion and climate change. Amherst College "acknowledges the grave threat posed by climate change, the role in climate change played by human activity, and the responsibility we bear to confront this challenge." Carleton notes that "the use of fossil fuels has had serious negative environmental consequences" and Williams College states "That combating climate change is "perhaps the central ethical problem of our time." While these and other institutions like Swarthmore, Bates, and Pomona chose not to divest they did respond by undertaking other activities supporting climate action.

Organizations should align their investments with their mission: Several institutions see continued investment in fossil fuel companies as inconsistent with their mission and pursued divestment as a tool to align them. For example, Green Mountain College noted that "Where we spend our money matters for the environment and for social justice," while Stanford's announcement of divestment from coal in 2014 highlighted that "[divesting] is consistent with our institutional values and acknowledges the critical sustainability challenges facing our planet." In 2014 the Rockefeller Brothers Fund (RBF) announced it planned to divest from fossil fuels because of its "deep commitment to combating climate change." These institutions linked their choice to a broader commitment to climate action including their investment choices.

A related issue to alignment of mission is the linkage between climate change and academic freedom. In light of numerous reports of fossil fuel companies knowingly misleading the public about the facts of climate change and, suppress climate science, and ignore evidence-based reasoning, several institutions see continued investment in fossil fuel companies as inconsistent with their academic mission to further open academic debate and fact-based decision making. Both Pitzer and Columbia's Advisory Committee on Socially Responsible Investing (ACSRI) have made arguments that divesting is a means of upholding academic integrity by cutting ties with companies that suppress scientific fact.

Columbia has yet to decide whether to divest but its ACSRI proposed a "Stand Up for Science" approach that would target for divestment publicly traded firms that engage in climate change denialism whether by 'word' or by 'deed.' "The ACSRI argues that "S*uch an approach responds to the particular role and responsibility of a university in a democratic society...*" ACSRI further argues that "in the case of fossil fuels… the serious threshold problem is that *the core facts of anthropogenic influence on global climate are denied by important governmental leaders and are regarded as highly contestable within mainstream political discourse despite the overwhelming scientific consensus*. This is partly because energy companies engaged in fossil fuel extraction can exert significant leverage on public policy formation and have in various ways fostered denial of climate change science." ACSRI sees divesting from identified, science-denying fossil fuel companies as a means for academic institutions to encourage science driven debate.

Institutions should not use their endowments to make political statements: While educational institutions may agree that preserving academic freedom is paramount, not all agree that divesting is the right way to accomplish this. Some have expressed misgivings about using their endowments to make statements unrelated to their core academic mission and argue that, because divestment is not an academically motivated decision, it would threaten their institution's reputation of academic neutrality.

Carleton notes that it "has a long history of not taking positions on issues that are not clearly academic and that do not directly pertain to and advance the College's core educational mission" and Harvard worries that conceiving of the endowment "not as an economic resource, but as a tool to inject the University into the political process or as a lever to exert economic pressure for social purposes, can entail serious risks to the independence of the academic enterprise." Similarly Reed College, which rejected divestment in 2014, acknowledges its commitment to academic freedom that requires it to limit the "political role of the institution or the enlistment of the institution's name in political causes."

Historically, though, institutions of higher education have responded to political or social issues in inconsistent ways over time. For example, some institutions that have reject divestment supported divestment from South Africa in protest to apartheid in the 1980s. We explore this issue more closely in section xxx.

Divestment is hypocritical because we use fossil fuels every day: The moral arguments to combat climate change are tempered by those who are concerned about the hypocrisy of divesting from fossil fuel companies at the same time they are consuming their products. In its statement against divesting, for example, New York University noted that "it seems disingenuous for NYU to, on the one hand, deem the fossil fuel industry morally reprehensible—the clear implication of a decision to divest— while on the other hand continue to regularly and willingly use their products to power and heat our campus and to transport our students and faculty (albeit in ways that are more efficient and less carbon intensive than in the past)." As with many questions around divestment, there is not universal acceptance of the hypocrisy argument. As Pitzer College trustee Donald Gould argues, "We buy cars for transportation, not as a means to burn fossil fuel! Building the carbon-dependent economy took a long time; so will its dismantling. For Pitzer to bet its endowment on continued profits from fossil fuel producers would be the real hypocrisy."[1]

Consuming fossil fuels and divesting from fossil fuel companies are not necessarily mutually exclusive acts. While society does depend on fossil fuels, the purpose of the global divestment movement is aimed at transitioning to a cleaner economy. Divesting is just one means of using the available economic leverage that colleges and universities possess to call for what may be an unprecedented global economic shift. When considering divestment, most institutions (whether they choose to divest or not) have also increased efforts to become more sustainable and less reliant on fossil fuels. Many have argued that the best way to support a transition away from fossil fuels is to decrease their own demand for fossil fuels. However, this does not preclude the potential impact of divesting.

Divesting from fossil fuels will lead to a "slippery slope": Institutions caution that fossil fuel divestment will lead to pressure to divest from other sectors deemed problematic by different groups, the so-called "slippery slope" argument. Indeed, there are a number of other issues in the public domain that have already led to calls for divestment, private prisons being just one example. The possibility of proliferating demands for divestment presents the risk of using endowments to reflect political goals pushed by different groups instead of maximizing the economic benefit to the school. Those who discount the risk of a slippery slope note that climate change is not like any other issue and thus sets a high bar to consider divestment. Pitzer College's Donald Gould noted in an interview with the Los Angeles Times that "climate change dwarfs pretty much any other issue we face now." The "slippery slope" argument was also prominent during the divestment campaign against South African apartheid three decades ago. But it is not clear that these fears were well founded especially given that there has not been a campaign the magnitude of the South African divestment movement until the recent fossil fuel divestment efforts.

Will divestment have a material impact combating climate change?

Those who reject divestment argue that selling stocks in fossil fuel companies will have no practical impact on the financial bottom line of fossil fuel companies or their behavior. But others argue that directly impacting the finances of fossil fuel companies is not the point. Rather they note that divestment is a powerful symbolic act that will stigmatize the industry and force governments to act to combat climate change. Regardless of impact, the efficacy of punishing all fossil fuel companies comes under some scrutiny with many arguing that these same companies are major investors in alternative energies, although even this may be somewhat overstated.

Divestment will have no impact on fossil fuel companies: One of the main arguments against divestment is that it will have no impact on the behavior of fossil fuel companies. Divestment involves a transfer of ownership in the secondary market for securities. Since every sale also involves a purchase, the demand for such securities from other individuals and institutions will determine the extent to which divestment will have an impact on the share price of the affected firms. To a first approximation, the anticipated future earnings of firms determine the price of shares in the secondary market. If divestment does not affect earnings, its impact on the share price will be negligible. That is, even a small decline in price relative to anticipated earnings would make the shares attractive to buyers looking for value, and their demand to buy would prevent significant declines. If the affected companies do not experience any change in the cost of raising capital, then the extent of fossil fuel extraction and sale will also be largely unaffected. This is because the allocation of capital both within and across firms depends on the cost of raising capital relative to the revenues that investments are expected to generate.

These points appear in one form or another in several of the reports from peer institutions. For example, Bryn Mawr argues that the impact on the targeted companies would be negligible, since the "wealth of these companies is primarily generated by the sale of oil, gas, and coal and not by the sale of stock" while Wesleyan points out "these companies' profits are derived from selling energy, not stocks, and less than one quarter of all oil in the world is owned by publicly-held companies." For these reasons, Wellesley predicts that the economic impact on targeted companies would be "inconsequential," and Williams that "the act of divestment is largely symbolic."

Some argue that divestment may actually be counterproductive by seeking to impact the financial bottom line of fossil fuel companies that are the most lucrative sources of research and development funds for renewable energy, carbon capture, and utilization and storage (CCUS). Fossil fuels are expected to decline in importance as an input in the energy and transportation sectors, and firms have incentives to secure their long-term survival by transitioning into other technologies[2]. The only way to limit warming below 2oC, as agreed to in Paris, is to immediately reduce emissions by large scale implementation of alternative energy as well as

implementation of a program to capture and sequester CO2 from the atmosphere, and the offshore fossil fuel industry has the capacity for large scale implementation of CCUS.

Bryn Mawr says that "divesting from companies based solely on the amount of fossil fuel reserves they own ignores the extent to which they are investing in alternative energy sources" while The University of Michigan argues that "most of the same companies that extract or use fossil fuels are also investing heavily in a transition to natural gas or renewables, in response to market forces and regulatory activity." NYU notes that "many of the fossil fuel companies listed on the 'Fossil Fuel 200' are major investors in alternative energy research and ventures." MIT's approach is to "build on such momentum [to promote sustainability] not by distancing ourselves from fossil fuel companies, but by bringing them closer to us."

It may be useful to note that divestment cannot simultaneously have both a negligible impact on cash flows and at the same time hinder the transition to renewables; if the financial impact of divestment on cash flows is inconsequential, then so should be its impact on funding for expanding renewables research.

Divestment has powerful symbolic value and can change behavior: Advocates of divestment stipulate that it will have negligible financial impact on a fossil fuel company's bottom line. They argue instead that divestment has powerful symbolic value with the ability to ultimately influence governmental and private sector behavior. Dan Apfel, a former executive director of the Responsible Endowments Coalition observes that divestment is a public action where prestigious institutions have the ability to "create immediate waves" within a broader movement and keeps climate change in the headlines. He goes on to say that "the institutional responses are often more noteworthy to the press and general public than the actions themselves."

Oxford University's Smith School of Enterprise and Government recognizes that the divestment campaign has triggered a stigmatization process which they say "poses the most far-reaching threat to fossil fuel companies and the vast energy value chain." Oxford argues that the successes of past divestment movements, from tobacco to Darfur, resulted in restrictive legislation that impacted behavior. Divestment can draw attention to the urgency of a government response to the problems created by fossil fuel combustion. Oxford explains that if campaigners are able to create the expectation that government might legislate to levy a carbon tax, they will increase the uncertainty surrounding the future cash flows of fossil fuel companies. [NEED CITATION]

Wesleyan makes a case for symbolic actions in general, arguing "divestment offers the opportunity to stigmatize a firm and its associated industry" while the University of Mary Washington recognizes that the power of its decision to divest is "to signal to the rest of society that we must begin our transition to more sustainable energy sources." Pitzer argues that "Acts of symbolism evolved from a dream to a possibility to a reality to an inevitability. We look back now and say, of course women have the vote, how could it be otherwise? The idea that we can as

a planet come up with public policy on energy that helps mitigate the worst effects of climate change — we can't give up hope that we can achieve that. We have a fiduciary duty to do the opposite."

But the power of symbolism is sometimes seen as a negative, indeed, as the very reason not to divest. Pomona states that divestment "would only have a symbolic impact" while the Chair of Bowdoin College's Investment Committee agrees that divestment would "only have a symbolic effect on the fossil fuel industry, which is mature and enjoys significant free cash flow." Williams argued that the symbolic act of divestment will have "little likelihood of having a substantive impact on the economic or social forces responsible for climate change, or on the political decisions that are necessary to address it."

Is divestment a financially risky investment strategy?

A key question for the Board to consider is whether divestment will hurt the financial returns of the endowment. Those institutions that have already considered divestment disagree on this question. Those that predicted adverse financial returns did not divest while those that expressed concerns about the future economic viability of fossil fuel companies chose to divest. A key pivot point is what institutions and financial analysts think of the future of the fossil fuel industry and the possibility of stranded assets – fossil fuel reserves that could be left untapped because of government regulation or legislation curtailing extraction activity. Reports from Citigroup, HSBC, Mercer and others warn clients of the risk of stranded assets and industry bankruptcies, while others project long-term financial health of the industry. [WILL ADD CITE] The bottom line is that is impossible to know for sure whether divestment will have an impact on our endowment.

This section summarizes the arguments in the debate over whether divestment will negatively impact endowment values and sets the scene for [Section XX] of this report that discusses the possible financial implications to Barnard's endowment.

Divestment will negatively impact financial returns for the College: Trustees of non-profit institutions define their role as fiduciaries to ensure that endowments yield positive returns. While recognizing that there is a great deal of uncertainty about the effects of divestment on endowment returns, many institutions cite this as a key consideration in choosing not to divest. The question of financial impact is a vexing one as members of Investment Committees, many of whom are investors themselves, simply disagree on whether divestment will have any impact at all.

Those institutions that predicted adverse financial impact chose not to divest. According to Harvard, "logic and experience indicate that barring investments in a major, integral sector of the global economy would—especially for a large endowment reliant on sophisticated investment techniques, pooled funds, and broad diversification—come at a substantial economic

cost." Pomona anticipates that divestment would result in a significant "loss of growth in the total endowment, caused mainly by the need to withdraw from the best actively managed commingled funds" while Williams also projected a "potentially enormous" cost . . . of a magnitude that would, if realized, compromise our ability to achieve our core mission."

Calculating the financial impact on endowments is more of an art than a science with many institutions using estimates of past performance to indicate future returns. Several institutions compared actual returns over a fixed period in the past with what returns would have been had they been invested in "fossil free" funds. A 2015 study by Bradford Cornell commissioned by the Independent Petroleum Association of America analyzed the potential impact of divestment on the five largest university endowments and found that fossil fuel divestment would cost .23% per year in lost returns over a 50 year timeframe in addition to associated transaction costs. At the same time, the investment firm, Aperio Group did a study of fossil free indexes and found that the impact to returns would be far less than Prof. Cornell's findings. [CITATION WILL BE ADDED]

Those who worried that continued investment in fossil fuel companies represent risk, chose divest or at least to place a heavy screen on managers to factor in climate change considerations when making investments. These institutions accepted uncertainty in future returns arguing that continued investment in fossil fuels, and the potential for stranded assets, represents a greater financial risk to endowments than the status quo.

It is reasonable to expect any Board of Trustees will reject divestment if there is a real risk of financial loss, regardless of other considerations. It follows that those institutions who predicted adverse financial impacts, even if based on historical analysis, chose not to divest. Even institutions that held a more optimistic view of the future, or chose to divest for moral or ethical reasons, generally allowed that portfolios would continue to contain some exposure to fossil fuels; we did not find examples of any Board that walked away from its responsibility to achieve the highest possible returns. The RBF statement on returns is instructive, noting that they "will adhere to the longstanding mandate of our board of trustees that our assets be invested with the goal of achieving financial returns that will enable the foundation to meet its annual philanthropic obligations . . ."

Stranded assets make it risky to invest in fossil fuels: The notion that continued investments in fossil fuel represent financial risk stems from a concern about stranded assets. As efforts to combat climate change grow, the increasing possibility that governmental action will limit or prevent extraction of fossil fuels could devalue the assets of fossil fuel companies making them poor investments. The possibility of stranded assets means that fossil fuel companies may be overvalued creating a risk of a "carbon bubble" thus making continued investments risky and financially unsafe. A report from Citi states that low prices of oil are already stranding assets in the form of canceled fossil fuel projects and Citi projects an increase in assets that will be legally

stranded if regulations or legislation force closure of facilities, prevent development of new assets or impose requirements such as emissions constraints.[3]

Those who believe that stranded assets are a real risk are more inclined to (but still may not) divest. In December 2015 the New York State Comptroller's Office, which manages New York's pension funds, announced a $5 billion increase in sustainable investments. The Fund's CIO argued that "there is no question that climate change is one of the biggest risks facing global investors across multiple sectors." Yale's Chief Investment Officer recognizes the potential risk of investing in fossil fuel companies, asking managers to consider the impact of climate change when evaluating investment opportunities. The Chair of Bloomberg's New Energy Finance Board is concerned that the fossil fuel industry is a "business model that is predicated on being able to find unlimited supplies of capital" that represents a "miscalculation of risk."[4]

Fossil free funds do not perform as well: A final issue to consider is whether fossil free funds can out-perform the market and here, too, the picture is mixed and performance debatable. While assessing the performance of fossil free indexes is best left to professionals, we can say that, currently, oil prices are low and, according to Bloomberg, the cost of alternative energies, solar and wind in particular, are falling, leading to a record level of investments. Bloomberg notes that fossil fuel investments are declining while the number of active oil rigs in the U.S. in the spring 2016 fell to the lowest level since the 1940s. Conversely, according to a recent J.P. Morgan analysis, two notable renewable and alternative energy indices have trailed both the S&P energy sector (comprised mostly of oil & gas stocks), and the broad equity market as well. [NEED CITATIONS]

In a more localized example, Investure's Sustainability Series has not been receiving good returns. Investure started its Sustainability Series in response to client interest in sustainable investments with a focus on environmental, social, and corporate governance. Investure holds sustainable investment opportunities to the same standards as other investments. To date, they have made two active investments – Generation Investment Management, a global public equities manager, and Omega Energia, a leading Brazilian renewable energy platform – along with passive investments with Fidelity. As of June 30, 2016, annual returns in the sustainability series were down 1.73%, better than the 1-year return for the MSCI ACWI, but 5 year returns totaled .35% compared with 7.12 for the MSCI ACWI.

Table 1

Divestment: The Debate Summarized

Argument	Supporting Argument	Counter Argument
What role should values play in an institution's investment strategy?		
Combating climate change is a moral imperative	Climate change represents a real threat to the earth and as global citizens we have an ethical responsibility to mitigate its impact.	Few disagree that climate change represents a real issue that society must deal with.
Organizations should align their investments with their mission.	Some institutions see investment in fossil fuel companies as inconsistent with their mission or core values. Colleges and universities are dedicated to the principles of academic freedom and integrity; fossil fuel companies that actively seek to thwart or obstruct climate science are an assault on the basic mission of higher ed institutions. Columbia's ACSRI makes this particular point in its "stand up for science" approach to dealing with fossil fuel investments. Many institutions argue that the endowment is the wrong place to make a political statement and are reluctant to divest.	Not all institutions see their missions the same way; thus divestment may or may not be consistent with their mission. While Colleges and Universities agree on the principle of academic freedom they argue that the endowment is not the right place to make political statements and that avoiding divestment actually supports academic freedom. But Colleges and Universities have not been historically consistent in how they respond to public policy or social questions. Many divested from South Africa apartheid, for example. The scale of the issue may have more to do with a willingness to divest, as fossil fuels are ingrained in our society in ways previous divestment issues were not.
Divestment is hypocritical because we use fossil fuels every day	Some institutions are reluctant to divest because they use fossil fuels to carry out their mission.	There may not be an inconsistency here as one long-term goal of the fossil fuel divest movement is to transition to a fossil free economy, something that will occur gradually.
Divesting from fossil fuels will lead to a slippery slope	Some argue that fossil fuel divestment will lead to calls to divest investments from other causes.	This has not always been the case; Divestment from South Africa apartheid was the last biggest divestment movement three decades ago. Moreover, given its scope, complexity, and implications for the planet, fossil fuel divestment is not like any other divestment issue.

Will divestment have a material impact combating climate change?		
Divestment will have no direct impact on fossil fuel companies' profits	Because there will always be a transfer of ownership of fossil fuel securities, divestment will have no impact on the bottom line of fossil fuel companies	Even supporters of divestment stipulate that it will have no impact on the financial bottom line of fossil fuel companies.
Divestment may harm investments in renewable energy	Some fossil fuel companies are big investors in alternative energy; divesting from these companies could hurt efforts to develop renewables.	While many fossil fuel companies have invested in renewables, they are not the largest investors. Moreover, if divestment will have no financial impact on company cash flows, it can't have an impact on their investments in renewable energy.
Divestment has a powerful symbolic value and can change behavior	The main impact that divestment can have is to stigmatize fossil fuel companies and pressure governments to enact legislation to curtail emissions thus limiting the activities of fossil fuel companies. The more institutions divest, the louder the "chorus" to change behavior.	Institutions are reluctant to divest because it is only a symbolic act.
Is divestment a financially risky strategy?		
Divestment will negatively impact financial returns for the College	Many institutions worry that if you restrict investments in fossil fuels, you will hinder returns. Most used historical data to project future returns.	Those who chose to divest discount that past performance is indicative of future returns; they argue that the future will be different and that fossil fuel companies will find it more difficult to be profitable with pending regulations and legislation restricting activities.
Stranded assets make it risky to invest in fossil fuels	The obverse of the first argument: To limit warming temperatures to no more than 2oC will require fossil fuel companies to leave 80% of known reserves in the ground, "stranded", limiting their economic value. As a result, in the future, investments in fossil fuel companies will be risky and will hurt returns.	The market should already be factoring the risk of stranded assets in how they value fossil fuel companies, although there is not universal agreement that the market is doing this. Moreover, good investors will get out of fossil fuel investments if they do not believe the will yield returns.
Fossil free funds do not perform as well	The performance of fossil free funds are not as robust as indices that include fossil fuels.	Performance is decidedly mixed. MSCI's All-World Country Index (AWCI) over the last [5 years] shows fossil free funds tracking well with its benchmark index but others show fossil free funds not performing as well.

ENDNOTES

[1] http://www.mayorsinnovation.org/images/uploads/pdf/Gould.pdf

[2] http://www.eia.gov/analysis/

[3] Citigroup states, "market mechanisms such as a price on carbon could make existing or new projects unviable. Demand for fossil fuels could fall as the costs of renewables fall, and technology improves. Local air quality considerations may also play a role in favoring renewables over coal, and regulations may support this. □Given global markets, mechanisms or regulation in one country may of course affect suppliers elsewhere; local regulation in consuming countries will affect aggregated global demand for fossil fuels, with a potential knock on effect on pricing and hence consumption patterns in other markets."

[4] http://www.bloomberg.com/news/articles/2016-04-06/wind-and-solar-are-crushing-fossil-fuels

SECTION 6
Higher Ed Responses to Social and Political Issues

Institutions like Barnard have confronted social issues in the past. The question of how and when a college should act on a social issue is not new. Colleges and universities have faced such questions on topics including apartheid, tobacco, Sudanese genocide, private prisons, admissions policies, and even slavery. With respect to divestment, Barnard, like many institutions, have responded to these issues inconsistently – sometimes favoring divestment as with South Africa apartheid and other times resisting it, as with tobacco. Fossil fuel divestment may be more complex than other issues but it comes at a time when fiduciaries are being asked [directed?] to consider the role of environmental, sustainability and governance (ESG) issues as they make financial decisions. When considering Barnard's role as an actor in society, we have a history of facing social issues which we can look back on and guide us.

Institutions have an inconsistent track record in responding to public policy questions

Academic institutions, colleges and universities, including Barnard, are dedicated to providing excellence in education and research for their students. As noted in section [4] of this report, many institutions declined to divest from fossil fuels on the theory that to protect academic integrity endowments must not be used to make a political statement. But institutional behavior in the face of social issues, including Barnard's, has not been consistent over time. There are clear instances where universities have both supported and opposed adjusting their investment strategies in response to social and political issues and have found compelling reason to follow both paths. For example, many colleges and universities chose to divest from South Africa during the 1980s (including Barnard and Columbia) to protest its apartheid policy, from tobacco companies in the 1990s citing public health concerns, from Sudan in the 2000s, and most recently from private prisons (Columbia in 2015). Still, many others have been reluctant to divest from fossil fuels.

So why is there a general reluctance to divest from fossil fuels? Unlike greenhouse gas emissions, issues like private prisons, tobacco, and the Sudanese genocide are all contained issues entailing relatively small financial investments thus making it easier for an institution to disentangle them from other holdings. Only the South African divestment movement had a relatively comparable magnitude to fossil fuel divestment; in 1985 Columbia divested about four percent of its endowment, selling holdings from companies with investments in South Africa including American Express, Burroughs, Chevron, and Coca-Cola, among others.[1]

By contrast, the issue of climate change is unprecedented in its global scale with many human endeavors reliant on the use of fossil fuels. Investments in fossil fuels are a major reason for historical growth in endowment value, making divestment much more complicated. In addition, the way colleges and universities manage endowments today -- in commingled funds and outsourced to CIOs -- is very different than it was during the time of

South African divestment and gives the colleges less direct control over such investment decisions.

Our own discussion at Barnard seems to indicate that, in the case of fossil fuels, the difficulty of the task is, indeed, part of the concern given its scale; nearly everything we do connects in some way to greenhouse gas emissions. The fossil fuel divestment movement has chosen to focus solely on divesting from companies that directly extract and produce fossil fuels, but it is not easy to draw bright lines around specific actors. Emissions are caused by fossil fuel extractors as well as end users – i.e., those of us who live in the western hemisphere and who power our homes and cars and, in fact, our academic institutions with fossil fuels.

Modern legacy of slavery and parallels with the fossil fuel debate: If we look further back in history, we can see that the actions of colleges and universities, whether academic, operational, or financial, are judged by later generations. Consider the discussion on many campuses about the institutional implication of the slave trade and the ramifications today of decisions made in the past. The slave economy offers a useful case study with parallels to today's fossil fuel economy in the degree to which the slave trade was ingrained in the global economy, represented a clear moral issue with many viewing such participation as unavoidable, and hamstrung by the daunting view that it would be impossible to transition the economy beyond dependence on slave labor.

In 1838, Georgetown sold 272 slaves to finance operations and ease debt. Today, Georgetown, and other institutions across the country, are facing the legacy of their social, political, operational, *and financial* decisions. Looking back on academic institutions responses to the social and political circumstances of the day, no one stops to make a distinction between the arm of the College that raised or managed the money and the rest of the institution. Today (and indeed, in 1838, by many as well), the sale of slaves is seen as an unacceptable way to manage finances even if those financial decisions were made to support the academic mission.

What seems today to be totally unacceptable was, at the time, perceived as a deeply complicated and intractable social, political, and economic issue, just as the issues surrounding climate change are perceived today. As Chris Hayes writes in *The Nation*, the comparison is between the political economy of slavery and the political economy of fossil fuels. In 1838 abolition was a much discussed but still distant ideal, championed by some but dismissed by many as impossible, too difficult, and not practical. Every sector of the economy, every good and service purchased and consumed, was entangled in the "peculiar institution." Today, our economy is equally enmeshed in a system that has serious adverse implications for the planet. And while the two situations cannot be equated[1], there is a parallel, and a lesson to be learned. As Ralph Hamann writes for *The Conversation*[2]: "The

[1] Chris Hayes in The Nation is clear on this point: "There is absolutely no conceivable moral comparison between the enslavement of Africans and African-Americans and the burning of carbon to power our devices." [WILL ADD CITE]

abolition analogy also helps counter claims that investment decisions are not political . . . It is disingenuous to say that investments are made purely for economic reasons, as long as they are legal. Laws change, and norms play a role too. Just because slavery was legal does not mean that it was morally or economically right."

Georgetown President John J. DeGioia, considering the modern response to Georgetown's legacy of slavery said that "I think all of us need to get it right this time." As we consider the fallout on campuses across the country of mistakes made by earlier generations, perhaps the lesson to be learned in the case of climate change is that it would be wise to get it right the first time.

The changing nature of fiduciary responsibility: There is an understandable tension between Barnard's response to climate change and the Board's fiduciary duty to create financial returns on investments that will help fund operations, salaries, financial aid and other critical programs. While fiduciary duty is widely considered to be focused on maximizing investment returns on behalf of the institution, this perception is changing as ESG investment practices have become more prevalent, the expectations of investors have evolved, and the assumptions that have propelled prevailing finance theories from recent decades are being questioned. The ground-breaking 2005 Freshfields Report on fiduciary duty stated: "in our opinion, it may be a breach of fiduciary duties to fail to take account of ESG considerations that are relevant and to give them appropriate weight, bearing in mind that some important economic analysts and leading financial institutions are satisfied that a strong link between good ESG performance and good financial performance exists."[2]

The US Labor Department issued guidance on October 22, 2015 for retirement plans covered by the Employee Retirement Income Security Act of 1974 (ERISA) notes that "ESG factors may have a direct relationship to the economic and financial value of the plan's investment" and in such instances, these investors should consider ESG issues proper components of the fiduciary's primary analysis of the economic merits of competing investment choices. Numerous pension funds around the world, including the two largest pension funds in America,[3] have chosen to divest from fossil fuels to some degree, reinforcing the notion that fiduciary duty does not necessarily conflict with socially motivated investing.

The idea that corporations and fiduciaries have a responsibility to act as "global citizens" stems from the major shifts in the landscape of the political economy since World War II. In the broadest sense, we can identify the initial post- World War II economy as having major political consensus around the belief that government intervention and regulation should be used to protect public welfare. The second shift can be broadly defined as a movement towards deregulation (espoused by Milton Friedman in the U.S. and Friedrich Hayek in Europe) and a

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[2] (UNEP FI, 2005, p. 100).

weakening consensus regarding the appropriate scope of government intervention for the protection of public welfare.

Given the shifts in political thought over the last half-century, Barnard's role as a "global citizen" is more complicated. In the years since the emergence of a global consensus around climate change, governments have failed to enact policies that we can confidently expect to limit global warming to 2°C. In this absence of government action the role of private institutions and corporations takes on new consequence.

Milton Friedman wrote in 1970 that "there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud." Friedman's argument may hold in an era when the government acts to regulate portions of the economy but in an era where governments fail to intervene, are companies and other institutions absolved of their responsibility to act? Friedman argues that there is "only one" responsibility of business: to maximize profits "*so long as it stays within the rules of the game.*" But what prevents the players from changing the game? The advent of B-Corp certification[4], for example, represents a move by corporations to commit to "meet the highest standards of verified social and environmental performance, public transparency, and legal accountability." It seems that "the game" may be changing and that the "traditional paradigm of fiduciary duty is undergoing a transformation."[5]

The lesson for Barnard is to note a growing trend towards the public's increasing demand for institutions to act with more than financial returns in mind. How institutions behave can have implications for the brand that attracts customers to the institution. Barnard has a "brand" that attracts students, faculty, donors, and alumnae loyalty. A recent Dartmouth report on divestment notes that "prospective students, faculty, and staff may feel greater or lesser affinity for Dartmouth after learning of Dartmouth's decision on divestment."[6] Additionally, in a survey of 8,200 students, the Princeton Review found that 69% of college applicants say that having information about a college's commitment to environmental issues would contribute to their decision to apply to or attend the school.[7]

Barnard's historical responses to social and political issues: For an institution, public or private, there are a number of ways to take action on any issue. An examination of Barnard's history, from President Ellen Futter's fight to keep Barnard independent of Columbia to the recent transgender admissions policy, reveals different responses to a variety of social and political issues.

Formal Divestment: In May 1985, as a response to the violence and racial injustice perpetuated by the apartheid South African government, Barnard's Board of Trustees resolved the following:

> *The Board of Trustees of Barnard College has a responsibility to invest and administer the College's financial resources in a prudent manner, ensuring the*

College's basic mission of teaching, learning, research and free exchange of knowledge will endure. The Board also believes it is appropriate to take ethical considerations into account in the course of managing the College's resources....

The system of apartheid supported by the Republic of South Africa is abhorrent and contrary to values and fundamental principles of human decency to which the Barnard community is committed. The Board believes that although there are other areas of the world where violations of human rights exist, the situation in South Africa is so egregious as to require special attention and action...

Resolution:

...that Barnard College will make no further investment in companies with operations in South Africa and will divest of its holdings in such companies within 2 years unless conditions in South Africa are deemed to have improved significantly during that time.

The change in investment policy brought portfolio investments in line with the Board's unwillingness to recognize or support in any visible way, the continued apartheid policies of the South African government. It was a situation where there was stronger public consensus on the moral issue of apartheid and the companies doing business in South Africa could be easily identified and holdings sold. When Barnard divested from South Africa in May of 1985, the College sold its direct holdings from companies maintaining operations in South Africa, including IBM and General Motors. The value of divested assets "represented 3.1 percent of the college's $31 million endowment and approximately 9.5 percent of its securities investments."[8] The financial impact was deemed limited because portfolio and sector impact was not concentrated and portfolio diversification could still be achieved with other stocks within the same sectors without significant impact on risk-adjusted returns.

The statement by the Board is careful to identify apartheid as "the only issue to rise to the level of divestment" in an effort to avoid the 'slippery slope' question that we are confronting with regard to fossil fuel divestment. [NEED TO CHECK THIS QUOTE]

Informal Divestment: [YEAR] In the case of tobacco investments, science viewed inhalation of tobacco smoke as detrimental to the health of smokers/students but for the most part, smoking was a freedom of individual choice issue. Once proven that second hand smoke was equally harmful to a wider population – in this case, the students, faculty and staff of the College – the College mitigated the detrimental effects by making Barnard a smoke-free campus. In line with the College's initiative, the Investment Committee (but not the full Board) encouraged the investment managers to gradually reduce investments in tobacco companies but did not mandate such a change:

After some discussion, the Committee agreed not to formally direct any of the managers to hold or sell any particular stock in any particular industry, but to informally convey to them that the general wish of the Committee is that tobacco investments not be added to the portfolio but gradually reduced and

eliminated. This policy was unanimously approved by the Committee and has been transmitted to all the investment managers.

It is not clear why the Investment Committee did not recommend a more formal change in investment policy, but, by 1998, most independent tobacco companies had been merged into larger consumer products companies (RJR Nabisco, Altria, etc.). At the time, a Columbia Spectator article reported that "it has been Barnard's policy to encourage a healthy lifestyle that does not include tobacco products. This is just one example of how Barnard's values can be reflected in its investing." [CITE]

Administrative Policy: In 2015, the College's Board of Trustees approved a resolution regarding admission of transgender women. The admission of transgender women is directly relevant to Barnard's core mission, as it pertains to providing a liberal arts education to women in light of an evolving understanding of gender in modern society. The June 2015 resolution reads:

> *"Since its founding in 1889, Barnard's mission has been to provide generations of promising, high-achieving young women with an outstanding liberal arts education in a community where women lead. Every aspect of this unique environment is, and always will be, designed and implemented to serve women, and to prepare our graduates to flourish and make a difference in the world. This mission is powerful, and remains vital today, perhaps more so than ever.*
>
> *In furtherance of our mission, tradition and values as a women's college, and in recognition of our changing world and evolving understanding of gender identity, Barnard will consider for admission those applicants who consistently live and identify as women, regardless of the gender assigned to them at birth. We will also continue to use gendered language that reflects our identity as a women's college."*

This change in policy to admit transgender women could be classified in the category of social justice and human rights. It did not have any financial or investment implications for Barnard's endowment. However, the policy change did have financial implications for the College due to the need to provide for accommodating bathrooms, and it was associated with campus-wide discussion and engagement.

[The Board of Trustees has also focused on the role of women among the College's asset managers. In engaging Investure, the Board felt that, as a women's college, it was important to increase the number of female managers who work with Barnard's endowment. In order to encourage alignment between this value and Barnard's investment policies, the Board currently requires that Investure report on the number of positions held by women among Investure's managers. Since the Investure first began reporting on this in [DATE] the number of female managers has increased to [XXX] out of 42 managers.]

ENDNOTES

[1] http://www.nytimes.com/1985/10/08/nyregion/columbia-plans-to-sell-by-87-stock-linked-to-south-africa.html

[2] "The Conversation" is an Australian online media publication which was founded by four Australian universities and sources content from researchers and academics.

[3] Both the California Public Employees' Retirement System (endowment size: $289.9 billion) and the California State Teachers' Retirement System (endowment size: $188.7 billion) announced in 2016 that they would divest from U.S. thermal coal companies.

[4] B Corps are for-profit companies certified by the nonprofit B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency. Today, there is a growing community of more than 1,600 Certified B Corps from 42 countries and over 120 industries working together toward 1 unifying goal: to redefine success in business.

[5] http://www.forbes.com/sites/csr/2010/10/28/friend-or-foe-fiduciary-duties-meet-socially-responsible-investments/#3b10767521eb

[6] Dartmouth "Report to the President on the Considerations involved in Divesting" (April, 2016)

[7] http://usatoday30.usatoday.com/news/education/2011-04-20-green-college-campus-princeton-review.htm

[8] Columbia Daily Spectator "BC Sells S. Africa Stock" (September 3, 1985)

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[7] http://usatoday30.usatoday.com/news/education/2011-04-20-green-college-campus-princeton-review.htm

[8] Columbia Daily Spectator "BC Sells S. Africa Stock" (September 3, 1985)

Section 7
Financial Implications for the Endowment

The key question the Board needs to consider is: will divesting from fossil fuels impact the financial value of the endowment over time. The Task Force found that there is no good answer to this question. Some of our peer institutions predicted the impact on their endowments by first analyzing what returns would have been over the past 10 years had they excluded fossil fuels and then projecting these returns forward. Those who did this analysis determined that their endowments would have yielded lower returns historically and thus could expect lower returns in the future; those schools who undertook this analysis rejected divestment. We were struck, however, by those institutions who determined that past performance was not a good predictor of future returns. While the Boards of these organizations maintained a priority on achieving the highest possible returns, they did so knowing that the impacts of divestment are uncertain and that continued investment in fossil fuel companies are either too risky, too inconsistent with their mission, or both.

We took a different approach to this question. Knowing that determining the financial impact of divestment is impossible, we looked at 5 possible scenarios, both with and without divestment, to glimpse into the next 10 years of endowment returns. Of course, this all assumptions driven; the 4 scenarios are artificial and serve only to bound the potential upsides and downsides of the strategies.

- **Status quo**: Barnard's 10 year return as of June 30, 2016 projected into the next 10 years.
- **S&P 500 Excluding energy**: Using S&P-500 excluding energy 10-year returns, as of June 30, 2016 and projecting this rate forward.
- **S&P 500**: Using the S&P 500 10-year returns as of June 30, 2016 (including energy) and projecting them forward.
- **Fossil free index**: Averaging the returns of 5 fossil free indexes and projecting returns forward.

[We looked at the possible impact on Barnard's endowment if returns declined in the future and inhibited Barnard's ability to preserve the buying power of the endowment; in other words endowment returns will not be sufficient to maintain the 5% spending rate Barnard takes from the endowment plus inflation. Presumably operating in a low-rate environment will impact all of the options.]

As table 1 below shows, using the same assumptions for gift receipts and spending, we found that the S&P ex energy index performed the best over the past 10 years and if we applied average annual growth of 7.7%, the endowment would grow by 82% between 2016-2026. The fossil free index performed the worst, with an average annual return of 6.43%, yielding average annual returns of 6.43% that would grow the endowment by 65%. While the fossil fuel index scenario seems low compared to the S&P ex energy projection, is not too different from continuation of the status quo at an average annual rate of 6.8%.

Table 1: Financial Implications

	Status Quo	S&P Ex Energy	S&P 500	Fossil Free
10 year return (%)	6.80%	7.70%	7.40%	6.43%
10 year growth ($m)	+$198.4	+$233.5	+$222.8	+$183.7
10yr Cumulative Change (%)	+69%	+82%	+77%	+65%
Cumulative Change in spending	--	+$5.5m	+$3.7m	-$.2m

These notional return projections have implications for Barnard's operating budget; assuming a 5% spending rate, the S&P ex Energy and the S&P 500 would both add annual spending, +$5.5million and +$3.7million over 10 years, respectively, for the operating budget; the status quo minus and the fossil free indexes would result in reduced spending.

We recognize that these results are illustrative at best; that there is no way to really predict the financial outcomes for the future. That said, the analysis does show that divestment is as likely as not to have an impact on the financial returns of Barnard's endowment. Absent a definitive answer on the financial question, the Board may have to base a decision on whether or not to divest on other, more qualitative factors, that the Task Force addressed in sections 5 and 6.

SECTION 8

OPTIONS FOR CONSIDERATION

The Task Force developed five options for the Board to consider with regard to divestment, ranging from maintaining the status quo to an option for full divestment. The options that include full or even partial divestment will require Barnard to change its endowment manager because the current consortium arrangement does not allow for customized investments that divestment would require.

The attached chart lists the options and the implications for the endowment manager.

Option 1: Maintain the status quo.

Under this option, Barnard would maintain our existing portfolio and not divest from fossil fuels. This option subscribes to the view that divestment as a symbolic act will have no real impact and that continued investments in the fossil fuel industry as part of Barnard's overall portfolio is the best way to achieve returns in the future.

Option 2: Status quo plus

Under this option, Barnard would essentially maintain the status quo but would invest in Investure's Sustainability Fund as a way to focus a small portion of the endowment on more sustainable investments. Like option 1, option 2 recognizes that divestment is purely a symbolic act with no real impact and thus a gesture that could have negative impact on the endowment. That said, investing in the Sustainability Fund would represent a nod to those who believe that such investments are important to help transition to alternative energies without sacrificing returns.

Option 3: Divest from Coal

Option three would limit Barnard's exposure to coal to no more than .1% of the portfolio; as of July, 2016, Barnard's exposure to coal totaled .4%. Barnard would have to explore whether we can reduce or eliminate investments in coal within the Investure consortium. This option acknowledges that Barnard has some responsibility to mitigate the impacts of climate change and plans to do its part by limiting or eliminating investments in coal but also recognizes that Barnard's endowment may still financially be better off maintaining in fossil fuels.

Option 4: Divest from Climate Deniers

Under this approach, Barnard would divest from companies that actively deny climate science by word or by deed, consistent with the "Stand-Up for Science" proposal made by Columbia's Advisory Committee on Socially Responsible Investing (ACSRI). If the Board chooses this option, Barnard [will be] the first institution to focus a divestment strategy against climate deniers. The option recognizes that divestment can have an impact, even if symbolic and that aligning the endowment with values such as academic freedom is a priority for the College. Divesting from climate deniers also recognizes that there is value in differentiating the behavior of fossil fuel companies and acknowledges that some fossil fuel companies will be important

players in transitioning to a clean energy economy. Barnard's endowment will continue to hold investments in the industry. If the Board chooses option 4, Barnard will have to change endowment managers and choose an outsourced CIO that can customize a portfolio that excludes specific companies who have denied science.

Option 5: Full Divestment

Option 5 envisions Barnard reducing its investments in fossil fuels to near zero as soon as practicable. Option 5 is a full endorsement of divestment, a recognition that Barnard can add a powerful voice to the "chorus" of those institutions that have divested. Barnard can argue that divestment aligns the endowment with Barnard's values. It will take many years to achieve the "near-zero" standard. Barnard's endowment includes xx million in private equity partnerships, of which x% is invested in fossil fuels. While Barnard can sell its partnerships to others, it will likely have to do so at a discount resulting in losses to the endowment. The Task Force does not recommend that we do that. Rather a commitment to achieving near-zero investments in fossil fuels will be achieved over a period of years and will be fully realized when we liquidate our private partnership obligations. Like option 4, Barnard will have to change endowment managers to implement this option.

DIVESTMENT OPTIONS

Option	Investment Options	Relationship with Investure/New CIO
(1) <u>Status quo</u>: Make no changes to the endowment	• Make no changes in current policy or practice. • Direct Investure to favor managers with strong ESG policies.	• No change required. • These options can be implemented within the existing Investure model.
(2) <u>Status Quo Plus</u>: Reject Divestment but Invest in Sustainability Fund	• Don't divest but contribute x to Investure's Sustainability Fund. • Work with Investure to favor investments in managers with strong ESG policies. • Make no change to other investments.	

(3) <u>Limit Coal</u>: Limit exposure to Coal but re-evaluate whether to divest in the future	• Limit exposure to coal to no more than .1% of our endowment value as of June 30, 2016.
	• Express an intent to divest from fossil fuels in the future pending:
	  ○ Identification of a new outsourced CIO that can expertly manage a fossil-free portfolio
	  ○ An assessment that investing in fossil free funds will maintain returns
		• Coal is a tiny fraction of our current endowment; we may be able to reach a .1% limit within the consortium.
		• But . . . if not, we may need to consider withdrawing from Investure.

(4) <u>Stand up to Science</u>: Divest from Coal and Climate Deniers*	• Commit to divest from coal as soon as possible. • Commit to divest from companies that actively deny climate change and undermine climate science "by word or by deed." This is consistent with Columbia's proposed "stand up for science" approach where any divestment strategy would focus on a company's specific behavior denying science by word or denying the science by deed. • Accept continued investments in companies that affirm science by word and deed such as fossil fuel companies that are investing in alternative energies. • By December 30, 201X, identify companies that deny science by word and deed.	• Requires withdrawal from Investure, establishing a relationship with a new CIO to adopt a different approach to portfolio management to ensure near zero fossil fuel exposure. • We would need to find a firm that can work with others to customize our endowment to exclude specific companies that deny climate science.

DIVESTMENT OPTIONS		
Option	**Investment Options**	**Relationship with Investure/New CIO**
(5) <u>Full Divestment</u>; get to as near to zero as possible while protecting returns*	• Commit to reduce our exposure to fossil fuels to as low as possible, with a goal of getting to zero exposure. • Work to reduce fossil fuel exposure from the June 30, 2016 baseline of xxx to yyyy by zzzz. • Acknowledge that getting to zero exposure will not be possible in the near future; recognizes that fossil fuel investments may be risky in the long run given climate science but hedges in the short term by accepting these investments to maintain returns.	• Requires withdrawal from Investure, establishing a relationship with a new CIO to adopt a different approach to portfolio management to ensure near zero fossil fuel exposure. • Investure will maintain private equity investments until liquidated.

*These options assume that Barnard will not sell private equity investments. This means that Barnard will face exposure to fossil fuels until private equity partnerships expire and are fully distributed.

SECTION 9
SUSTAINABILILTY INITIATIVES

One of the conclusions sparked by divestment discussions is that Colleges and Universities have a role in addressing climate change as global citizens. Even among schools that did not divest, almost all chose to enact some kind of "climate action plan" as a result of their consideration of divestment. The Task Force discussed the notion that perhaps the best way to mitigate the impacts of climate change, and impact the financial bottom line of fossil fuel companies, is to reduce demand for fossil fuels on our campus. Barnard already has a robust sustainability program and the Task Force considered ways to expand its efforts going forward.

The Experience of Peer Institutions

Colleges and Universities' "climate action plans" are diverse in goals and in magnitude, but generally include three main prongs: 1) building up academic offerings on climate change and sustainability, 2) achieving carbon neutrality or reduced emissions by a target date, and 3) allocating a budget for sustainable infrastructure and initiatives on campus. Other schools took additional actions such as implementing a tax to campus departments based on their carbon footprint, establishing a department or position devoted to sustainable initiatives, and providing a fossil free option for employee pension funds. While the plans were greatly varied, they encompass many of the same opportunities for increased sustainability at Barnard. More broadly, most "sustainability" or "climate action" plans include the following elements:

- A statement of purpose or public commitment to addressing climate change;
- A sustainability office or program, often with at least one full time staff member, usually more than one;
- A climate action plan including explicit targets and timelines for emissions reduction, energy usage, waste reduction, etc.;
- An outward facing online presentation of sustainability initiatives on campus;
- Curricular and/or research initiatives; and
- Initiatives aimed at creating a culture of sustainability on campus.

The New School fully divested from fossil fuels as a part of their overall plan to address climate change. But divestment was only a small part of the New School's climate action plan. The New School's response to climate change takes numerous angles, integrating sustainability and eco-literacy into curriculum, campus programming, and events. As articulated in the mission statement, teaching, research, and community engagement leading to sustainable climate solutions are core values of The New School. The New School also was an official leader and endorser of the People's Climate March in September 2014, and the newly constructed University Center building is LEED Gold-rated. There is compost collection everywhere that food is sold on campus. The Advisory Committee on Investor Responsibility (ACIR) maintains visibility on issues including human rights, labor standards, environmental sustainability, equity, diversity, discrimination, and corporate governance and disclosure. In addition, handbooks for students and for employees aim to create a culture of sustainability in campus life.

Harvard, did not divest, but did implement a clear and broad range of sustainability initiatives. Harvard set concrete goals for reducing greenhouse gas emissions, waste per capita, water use, and the amount of organic landscaping. Harvard has taken a strong "campus as laboratory" approach, linking campus operations to curricular and research initiatives. As one example of the link between research and operations, Harvard recently committed to reduce endocrine disrupting chemicals like flame retardants on campus. Harvard faculty co-authored a "major call to action to reduce exposure to toxic chemicals," and the campus is moving to adjust purchasing policies accordingly.

Managing Change

A common theme in discussions with peer institutions and other experts is the difficulty of enacting lasting, institutional change. Reducing the carbon footprint entails setting specific targets and changing behaviors. But to do both of these effectively, the entire campus community must buy into such changes. To tackle the "how" of institutional change, Columbia, for example, aims to adopt a set of sustainability principles in 2016, and has launched a campus wide effort to engage multiple stakeholders in identifying goals and strategies to meet them. Columbia's next step in their "multi-faceted and multi-tiered approach" is to develop a strategic plan in support of the sustainability principles. They have held a series of "town hall" meetings and begun work by focus teams "comprised of students, faculty and staff from across the University." The goal is to identify goals, facilitate engagement by all stakeholders, and create the conditions for lasting change.

How does Barnard compare?

Barnard has undertaken robust efforts to become more sustainable, even before the advent of the divestment movement. The Task Force compared Barnard's efforts to date to the six common elements of good climate action plans.

Statement of purpose or public commitment: The Barnard website, under vision and values, states the following:

> Barnard's commitment to sustainability is our pledge for a better, greener, future: not only for the Barnard community and Morningside Heights, but for a more environmentally and socially responsible planet. It's the College's intention to involve and integrate students, faculty, and staff into promoting sustainable practices, reducing our environmental footprint, and encouraging the adoption of effective and efficient programs that demonstrate our commitment as a leader in the urban environmental landscape.

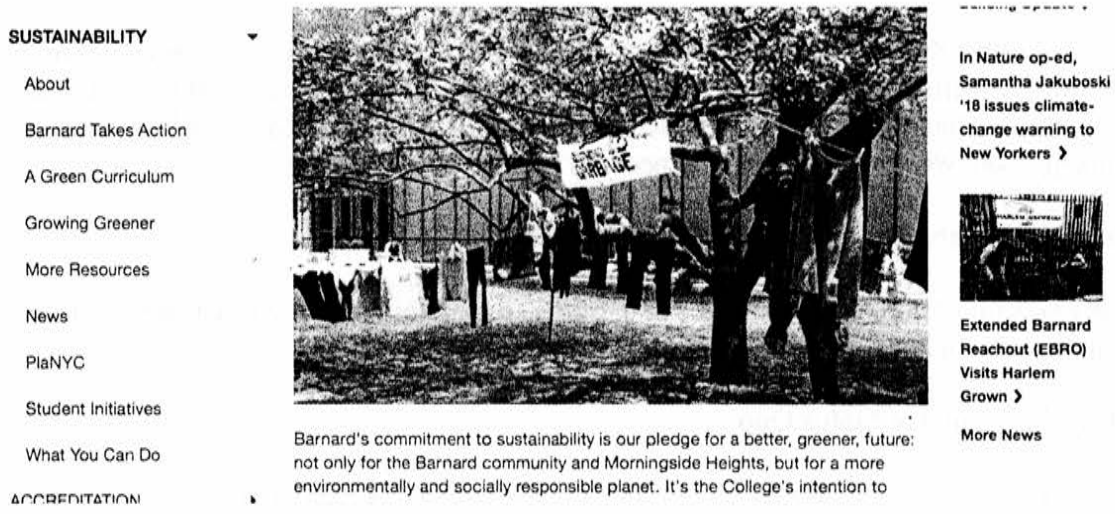
Sustainability office or program: Barnard's sustainability initiatives are currently coordinated through Campus Services and the Tripartite Sustainability Committee. The Committee is comprised of students, faculty, and staff, and is chaired by the VP for Campus Services. Barnard has been active in local carbon footprint reduction challenges and other initiatives on campus. For example,

- Barnard participated in the Mayor's PlaNYC Carbon Challenge and met the 2020 goal of a 30% reduction in GHG emissions and is participating in the next phase of the Mayor's Challenge (additional 30% by 2050)
- Barnard participated in Mayor's Cool Roof Program [??]
- Building Management Systems in select buildings [??]
- LED replacement program up and running
- Bottle filling stations
- Program for landfill reduction proposed for this fall
- See appendix for more detailed list

In terms of staff, Barnard does not have any full time staff dedicated to sustainability, rather the Program Manager for Environmental Sciences, dedicates 1/5 of her week to her role as Sustainability Coordinator. Other staff from Campus Services and Facilities regularly work on sustainability programs, and the members of the Tripartite Committee contribute as well, but Barnard currently has no dedicated office, budget line, or personnel.

A climate action plan including stated targets and timelines for emissions reduction, energy usage, waste reduction, etc.: Barnard is participating in the Mayor's PlaNYC Challenge, and has already met the first goal of 30% reduction of carbon emissions by 2017. We have set some internal goals (LED replacement, LEED certification for the new building, etc.), but we do not currently have a clear, outward-facing comprehensive goals comparable to many other schools. Such a set of goals might include areas like but waste reduction, water efficiency, purchasing guidelines, campus life and more. It is important to note that we currently have initiatives in some of these areas, but they are not yet clearly presented as measureable goals.

An outward facing online presentation of sustainability initiatives on campus: Below is the home page of Barnard Sustainability, found under "Vision and Values" on the Barnard site. The sites highlight out achievements to date, though there is considerable room for growth in terms of presenting Barnard as a leader in urban sustainability.



Curricular and/or research initiatives: Barnard currently offers a number of courses that deal with the topic of sustainability. Many of them are offered through Environmental Science, but many other departments offer courses as well. There is currently no central program or page on our website to find all the courses that touch on climate change or sustainability. The "Green Curriculum" page currently mentions only the environmental science program. Our new "Foundations" curriculum does not include any mention of sustainability, and relatively few of our current sustainability initiatives have been linked to operations initiatives

Although they are not captured or presented in any central location, many faculty and students are working on the topic of sustainability, across many departments. Examples of research and courses can be found from departments as varied as Environmental Science, Anthropology, Architecture, Economics, and Theatre.

It would be a simple and logical next step to present these courses and research programs more fully, and from there to find ways to connect our operations more fully with our teaching – perhaps through the Athena Center, for example.

Initiatives aimed at campus culture: Barnard has seen many indicatives aimed at daily life and campus culture, some originating from the students, some from the Tripartite Committee, some from courses or faculty research. However, as at many other schools, change has been slow to come and difficult to sustain. One notable failure from which we can learn has been the ongoing "coffee cup" initiative undertaken by the Tripartite Committee.

The Committee has attempted in numerous ways to reduce the number of single-use coffee cups sold in the Diana coffee shop. Discounts for using re-useable cups, offering ceramic cups for customers who stay, clearly posted signs at the counter, and distribution of re-useable travel mugs to all students have all been part of the campaign. Nonetheless, research collected by members of the Tripartite Committee indicate that this year, of 49,000 cups of coffee sold only 3% were sold in re-useable mugs. In other words, each member of the Barnard community had, on average, less than ONE cup of coffee in a re-useable mug over the course of the year.

This kind of rather depressing statistic illustrates the point made by the numerous campus sustainability experts: change is hard – whether large scale or small. Indeed, this is the problem the sustainability movement in general faces. From coffee cups to global modes of production and consumption, we are faced with the need for change at every level – no small order.

Barnard Sustainability: Options for Consideration

There are several options that Barnard can consider to maintain existing sustainability efforts or to enhance them, independent of a decision on divestment.

Option 1: Maintain the Status Quo

Barnard's Tripartite Sustainability Committee is effective and is pushing the campus to adopt more sustainable practices, albeit slowly. In addition to continuing the work of this committee, Barnard should also:

- Reaffirm or strengthen its statement of principles,
- Undertake an analysis of Barnard's carbon footprint, and
- Strengthen the web site and public face of our sustainability efforts.

Establishing a measurable and accurate baseline of Barnard's carbon footprint is a necessary step in moving sustainable initiatives forward. To this end, the Task Force has engaged a consultant, Gotham 360, to prepare a comprehensive Carbon Footprint for Barnard. This step will allow us to see, graphically, where we currently stand in terms of our impact on the environment. We can then work with the community to establish specific targets and goals.

Option 2: Appoint a Full Time Sustainability Officer and Focus on Changing Campus Culture

In addition to the items listed in option 1, Barnard can appoint a full time sustainability officer responsible for overseeing sustainable initiatives, interacting with the community to set agreed upon carbon footprint reduction targets, and working with the Administration to better incorporate sustainable practices in campus operations. The Sustainability Officer will be chiefly responsible for creating a culture where the Barnard community focuses on efforts to reduce greenhouse gas emissions and reduce landfill waste. Mounting a full effort asking each of us "what can we do to reduce our carbon footprint?" and making clear the various costs and benefits of individual actions can begin to change the culture at Barnard. For example, actions as simple as urging students to turn the lights off when they leave the building can save xxx in energy costs. Similarly, using disposable paper cups costs the environment yxxxx.

Option 3: Establish a Sustainability Office and Establish Audacious Goals

This option would establish a formal sustainability office and charge the Sustainability Officer to work with the community to establish audacious multiyear goals. These audacious goals can include setting stretch environmental targets and/or working with faculty to integrate sustainability into a "green curricula." The Sustainability Office would include staff and would focus, full time, into implementing the sustainability program at Barnard, setting targets and tracking progress, and making Barnard a leader in sustainable initiatives. Implementing option 3 will require resources in an already constrained environment. Barnard can also implement option 2 and 3 in sequence, starting with the appointment of a sustainability officer and then, over time, and as resources become available, evolve to a more formal office.

The importance of measurable goals

For a truly comprehensive approach that will set Barnard apart, the community can set measureable goals for every arm of the College, from operations and facilities to student life and academic departments. But as we have learned from our peer institutions, successful implementation of change is not only about "what," but "how." This means taking time to engage our community to identify change, dedicating resources, both human and material, to creating exciting and innovative programs in urban campus sustainability, a project envisioned in options 2 and 3.

While having a responsible sustainability officer to shepherd the College's efforts involves every arm, every department, and every system on our campus. No one office or person can be responsible, and no one person or office can be exempt – from students to curriculum to facilities to dining services to the financial and investment arms of the College. We all have a responsibility to tackle these problems in our own areas of expertise and our own spheres of influence on campus. Barnard has an opportunity to be a leader in urban campus sustainability and an opportunity to model full community engagement to make our community bolder, and more deeply committed to the future world our graduate will inhabit.

If Barnard is to implement its own Climate Action Plan we must evaluate the various elements we can include in this plan. The size, location and resources of the College will all influence how we construct our response to climate change, and may compliment or stand independent of the options of divestment.