



Suzanne  
and Richard  
Pieper  
Family  
Foundation:  
Annual  
Report

2016-2017  
Academic  
Year

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## **A Year of Growth and Progress**

It has been a year of extraordinary growth for Servant-Leadership at Milwaukee School of Engineering. New leadership at MSOE has provided the necessary support to increase impact throughout campus. Well established programs and events have continued to flourish while the focus of the Chair has concentrated on strengthening the integration of servant-leadership into the fabric of the university. Servant-Leadership at MSOE continues to have a bright future!

## **2016-2017 Goals as Reported Last Year**

The following are the goals that were presented in last year's annual report:

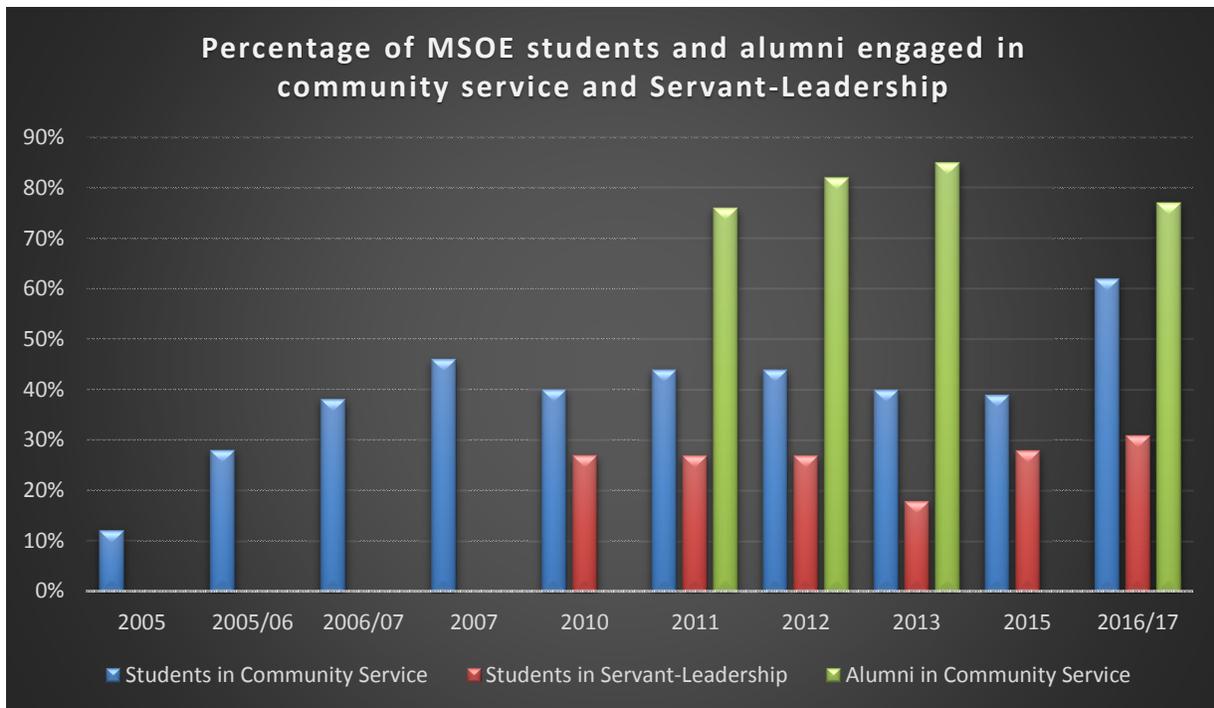
- Foster the growth of the Servant-Leadership Center for Business Solutions. We believe that this is an initiative that has the potential to nurture the development of new servant leaders at MSOE.
- Strengthen the network of servant leaders within the faculty at MSOE. We want to learn from the strengths within the CAECM Department at MSOE and help develop a stronger network across campus.
- Work to integrate servant leadership theory and application into the freshman experience at MSOE. Based on the new curriculum, there is an opportunity to engage students earlier in their career at MSOE.
- Continue to develop new ways to assess the effectiveness of Servant-Leadership at MSOE. We are especially interested in finding a way to assess how effective we are at developing servant leaders and the role this development has on professional fulfillment upon graduation.

Throughout this report, evidence of the achievement of these goals is presented. Additionally, new goals for 2017-2018 are listed within each outcome section.

## **Outcomes 3 & 4: Outcomes Measures Compared to Demographic Norms**

### **Longitudinal Data**

The chart on the following page represents longitudinal/baseline data that was updated with measures from the 2016-2017 academic year. Moving forward, we will continue to gather this data based on the academic calendar opposed to the calendar year.



**Figure 1: Percentage of Students and Alumni Engaged in Community Service and Servant-Leadership**

The data from the 2016/2017 academic year indicates the highest level of student involvement in community service since 2005, up to 62% from 39% last year. This year’s data also revealed the highest level of student involvement in Servant-Leadership at MSOE since 2005, up to 31% from 28% last year. While the increase in servant leadership involvement was relatively minor, the increase in community service involvement was significant. Milwaukee School of Engineering has made an effort to provide more opportunities for students to actively engage in both community service and servant leadership activities, this year’s data reflects those efforts.

In addition to assessing student engagement in community service and servant leadership, we also assessed alumni engagement in community service. The data from the 2016/2017 academic year indicates that alumni involvement in community service has not changed significantly and is slightly below the five year average. However, a 77% alumni engagement rate in community service is still noteworthy.

### **Student Satisfaction Inventory**

In the spring of 2015 and 2017, MSOE solicited Noel-Levitz’s to conduct a survey that was taken by sophomore and junior students. The Student Satisfaction Inventory (SSI) is a self-reported online survey instrument that ranks aspects in the order of importance to students who took the survey and their satisfaction in each of the aspects at MSOE. Kristin Shebesta, who administered the implementation of the survey, flagged two of the questions as those that

speak to community service and societal issues, topics that have a degree of overlap with servant-leadership at MSOE. The questions are numerical and are rated on a 7-point scale. The questions, and the response rates, are as follows:

<b><u>2015 Student Satisfaction Inventory Results</u></b>		
<b>“Community service opportunities have made a positive contribution to my college experience.”</b>		
Importance: 5.57	Satisfaction: 5.24	The gap: .33
<b>“My MSOE educational experience has contributed to my understanding of current societal issues.”</b>		
Importance: 5.39	Satisfaction: 4.29	The gap: 1.10
<b><u>2017 Student Satisfaction Inventory Results</u></b>		
<b>“Community service opportunities have made a positive contribution to my college experience.”</b>		
Importance: 5.55	Satisfaction: 5.25	The gap: .30
<b>“My MSOE educational experience has contributed to my understanding of current societal issues.”</b>		
Importance: 5.32	Satisfaction: 4.58	The gap: 0.74

**Figure 2: Student Satisfaction Inventory Comparison between 2015 and 2017**

Based on the Student Satisfaction Inventory results from 2015 and 2017, it appears that Milwaukee School of Engineering has made progress in closing the gap in both of the measures that relate to community service and societal issues.

### **New Ventures in Measuring Outcomes**

Our fourth goal for 2016-2017 was to develop new ways to assess the effectiveness of Servant-Leadership at MSOE. We have accomplished this goal in several ways. In addition to conducting surveys to gather the above information, we have made strides to improve the methodology we utilize to assess the effectiveness of Servant-Leadership at MSOE. First, we recruited a Servant Leader Faculty Fellow, Kristin Shebesta, to champion the assessment of Servant-Leadership at MSOE. Additionally, in April of 2017, we secured institutional approval to participate in the 2018 Multi-Institutional Study of Leadership. Our Vice President of Academics, Dr. Eric Baumgartner, is now working with us to prepare for this study to be administered in the spring of 2018. We look forward to using the data collected as a benchmark as we prepare to grow the presence of Servant-Leadership at MSOE.

## **2017-2018 Goals for Outcomes 3 & 4**

Goals as they relate to Outcomes 3 & 4 for the 2017-2018 academic year include the following:

1. Successfully administer and analyze the data from the 2018 Multi-Institutional Study of Leadership,
2. Work with the newly appointed Assistant VP of Institutional Effectiveness, Dr. Jill Meyer, to develop an assessment plan to more effectively measure the impact of Servant-Leadership at MSOE, and
3. Continue to collect and analyze existing assessment data from alumni surveys, senior exit surveys, NSSE, and SSI to measure the impact of Servant-Leadership at MSOE.

## **Outcome 5: A Breakthrough Venture that Promises a New Beginning in Acts of Goodness**

### **Update on Social Media Efforts**

Last year at this time we reported that we had just over 500 students, faculty and staff following our Facebook page. Today we have 580 followers. More impressively, our most viewed post to date has reached 3,770 people! This is more than eight times the number of views of a similar post last year. The benefit to this increased presence in social media is that more students are learning about Servant-Leadership at MSOE and participating in both community service and servant leadership activities as indicated in Outcomes 3 and 4. While this effort continues to be a huge success, it is no longer considered a breakthrough venture. Our social media efforts will be addressed in Outcome 6 next year.

### **Update on Student Leadership Development Program**

During the 2015-2016 Academic Year the Office of Student Life worked together with the Chair of the General Studies Department to offer a Student Leadership Development Program to our students. This program ran as a non-credit course in Winter Quarter of 2015-2016 and again in 2016-2017. During both offerings of this course, the Chair for Servant-Leadership was invited as a guest lecturer to provide students with an opportunity to reflect on their growth as servant leaders. While the creation of the leadership development program did not require the direct involvement of the Chair of Servant-Leadership at MSOE, it is a great example of how the practice of servant-leadership is becoming integrated throughout the framework of our university. While this program is continuing to flourish, it is no longer considered a breakthrough venture. The Student Leadership Development Program will be addressed in Outcome 6 next year.

### **Update on Center for Business Solutions**

In December of 2015, we reported on the newly created Servant-Leadership Center for Business Solutions which reaches out to Milwaukee area not-for-profit organizations to help solve their Information Technology challenges through the time and skills of our students. This center allows students to directly contribute to the betterment of our community while applying their technical and servant-leadership skills in a real-world scenario. Courses through this center ran for the first time in Winter Quarter 2015-2016. In last year's annual report, we noted that the first year of the Center was a success. However, we also set a goal for the 2016-2017 academic year to foster the growth of the Servant-Leadership Center for Business Solutions. This year we can report that the Center has continued to grow and we now have a team comprised of the Chair for Servant-Leadership, three faculty Servant Leader Fellows, and Dr. Eric Baumgartner, our Vice President of Academics, working to grow this Center to support the institution across all areas of study at MSOE. At the end of the 2016-2017 academic year, this team presented the Center concept to the Academic Chairs and received unanimous support. Following that meeting, the Chair for Servant-Leadership met with each of the Academic Chairs individually to determine which courses would be a best-fit for the Center.

Over the summer it was decided that the Chair of Servant-Leadership at MSOE would transition to a full-time position beginning in December of 2017. At this time the funds are available to support this full-time position until the end of the fiscal year, June 30 2018. During this seven month period of time, the Chair will work with the Center team to develop an implementation plan to grow the Center across campus while working to secure funding to support a full-time Chair position for as long as needed.

### **New Venture: University Honors Scholars Program**

Our third goal for 2016-2017 was to integrate servant-leadership theory and application into the freshman experience at MSOE. One way we did this was through our University Scholars Program (USP). Under the leadership of Dr. Michael Carriere from the Humanities, Social Science and Communication Department, we ran the second year of the freshmen USP in 2016-2017. These 38 honors students were invited to hone their leadership skills through service project work, professional presentations and interaction with regional leaders in various fields. The USP encourages independent, collaborative and cooperative learning.

Last year, the University Scholars Program collaborated with Servant-Leadership at MSOE to provide honors students with additional exposure to servant leadership projects, practice, and theory. The Chair for Servant-Leadership co-taught the first course of this three-course series and provided continued coaching to student groups on their service project work during the remaining two terms. Additionally, Servant-Leadership supported and coached the five Honors Program Student Liaisons who were selected as student mentors from the previous year's

honors program. These five sophomores were given the opportunity to practice servant leadership by building community within the program and by fostering the growth of future student leaders.

The depth and complexity of the honors program is impressive. All students read the following books throughout the year:

- Matthew Desmond, *Evicted: Poverty and Profit in the American City*
- Matt Hern, *What a City is For*
- Patrick D. Jones, *The Selma of the North: Civil Rights Insurgency in Milwaukee*
- Kent M. Keith, *The Case for Servant Leadership*
- Peter Marcuse, *In Defense of Housing*
- Bryant Simon, *Boardwalk of Dreams: Atlantic City and the Fate of Urban America*

In addition to supplemental readings, these books provided our freshmen honors students with an opportunity to reflect on the state of poverty in America and develop an understanding of the history that led to today's conditions. Each week, the students were asked to craft two questions that pertained to the assigned readings. Based on the weekly questions that these students asked, it is clear that they expanded their capacity for empathy through the experiences and stories that were shared in this literature. Below are a sample of the provoking questions that students asked:

- “Why did the African American middle class in Milwaukee distance itself from the working class? The reading stated that the middle class fought for equality for African Americans, yet they were essentially battling themselves in unifying their own race. Did that imbalance in the African American community cause further challenges in obtaining equality for the race as a whole?”
- “Why didn't the governing authorities in Detroit step up and stop the segregation occurring in Detroit? The separation of the white people and the black people was clearly destroying the city. It was causing a rise in crime, a rising amount of abandoned homes and an unsafe environment. Why didn't people realize that segregation was only perpetuating the problems in the city and not solving anything?”
- “As I read the Sugrue reading for this week, I kept remembering bits of information for my AP US History class back in high school. The New Deal was supposed to be a rebuilding program designed to integrate all workers into the labor force regardless of race, religion, etc. I've heard all about the successes of the New Deal and how it helped the US out of depression while positively impacting the situation between races. But when I read Sugrue's piece, this notion of a liberal nation that I had, did a complete 180 on me as he talked about the whites pushing back against the New Deal. So I'm

wondering, why didn't the New Deal actually bring people of different races and backgrounds together to help one nation in distress? Why were whites unable to put their differences aside? It seems ridiculous that whites would go on an all out riot if they even saw a black person walk through their neighborhood. And secondly, why didn't the history class in high school point out what really was going on instead of generically stating that the New Deal was beneficial to the creation of a liberal society. I feel like Sugrue argues that in fact it had the opposite effect and lead to even more segregation in the north by isolating the whites in clean modern suburbs while blacks were crammed in the inner city's cheapest housing.”

As a compliment to the difficult topics that these students covered in their weekly class discussions, all students were required to participate in a group servant leadership project. These projects were designed to provide students with an opportunity to actively participate in solving some of the problems that they were learning about as a class. These projects provided them with an outlet to act on this new knowledge that was challenging to digest as young men and women. The following is a list of the projects that the class worked on last year:

- Foreclosed home project: re-imagining what to do with a foreclosed property.
- Soccer field with Simba Soccer Club: designing and building a futsal field on an abandoned lot.
- Fondy Farmers' Market: designing and building a public park behind the market.
- UW-Extension composting project: figuring out how to make composting sustainable and profitable.
- Martin Luther King, Jr. Peace Place Park: continuing work on existing park.
- Career Liberia project: working on one or two phone apps for Career Liberia. One would be similar to LinkedIn, and the other would be one to increase political education and outreach.
- Blue Mangoes: designing a dehydrator that can be constructed in the Blue Mountains of Jamaica and helping to develop a business plan to provide economic stability to the region through selling the dehydrated mangoes.
- MacCannon Brown Homeless Sanctuary: working with Sister MacCannon Brown to develop a plan to renovate an abandoned warehouse in the 53206 zip code into a homeless sanctuary with a working kitchen, dining hall, clothing re-store, showers, clinics, aquaponics lab, makerspace, and community gathering space.

Following the first term of this program, students were assigned a reflective essay to provide them with an opportunity to think about their growth as servant leaders. These papers assessed their understanding of the tenets of servant leadership as well as their ability to apply these concepts to the service projects that they were involved in. It was clear from these essays that the majority of students developed as leaders through this experience.

The second term of this program was co-taught by Dr. Kelly Ottman from the Raider School of Business who is highlighted later in this report. Dr. Ottman has been instrumental in spreading the servant leadership philosophy throughout the global community. The third and final term of last year's program was co-taught by Dr. Michael Swedish from the mechanical engineering department. Students also partnered with New Jersey-based Stockton University on plans for their new Atlantic City campus as a grand finale to their year of learning together. An example of one of the final reports to this project is provided in the Appendix of this report.

As a result of this program's success, MSOE leadership approved the expansion of the University Scholars Program in spring of 2017. Beginning during the 2017/2018 academic year, the nearly 100 students accepted into the University Scholars Program will be invited into a four-year living learning community. These students will have the opportunity to expand on the growth from a single year in this collaborative environment and continue to integrate service learning into their experience at MSOE. We are excited to see the impact of this deep level of learning on this group of exceptional students.

### **New Venture: Institutional Integration**

There is a marked difference in the way that Servant-Leadership at MSOE is perceived on campus. This transition has been progressive, yet seems to have reached a tipping point. I first noticed this shift during Professional Development Day in fall of 2016. I heard servant leadership themes mentioned several of times while the keynote speaker and leadership team presented to faculty. Then throughout the year, I noticed that more faculty and students were reaching out to me to learn more about servant leadership. As I became unable to schedule time to meet with everyone that was interested in servant leadership, it became obvious that I needed a team. I was approved to hire Servant Leader Faculty Fellows to support Servant-Leadership at MSOE.

By the end of the academic year, I had five Faculty Fellows working with me to coach students and mentor faculty interested in servant leadership. I was also working with faculty from departments on campus that I had not worked with before and learned that servant leadership was being integrated in ways that I never knew. In June, when Dr. Eric Baumgartner became our new Vice President of Academics, we worked together to find the resources needed to continue to grow Servant-Leadership at MSOE. Part of what we were able to accomplish last year was simply discovering where servant leadership initiatives already existed on campus so we could make connections across the university.

In addition to meeting with faculty, staff, and students from across campus at our new monthly Milwaukee Roundtables sponsored by Servant-Leadership at MSOE. By the end of last year I had presented to the Spouses of the Board of Regents, met with several Regents, presented at an Academic Chairs meeting, met with each of the Academic Chairs individually and was invited

to present at Professional Development Day in fall of 2017. This additional exposure has provided Servant-Leadership at MSOE with the momentum it needs to further integrate within the fabric of the university. Our second goal for 2016-2017 was to strengthen the network of servant-leaders within the faculty at MSOE. I believe we have accomplished this goal in addition to creating a pipeline to continue to grow these relationships with our Servant Leader Faculty Fellows.

### **2017-2018 Goals for Outcome 5**

While we have made great strides towards integrating servant leadership into the institutional fabric of Milwaukee School of Engineering, there is still work to be done. The Chair of Servant-Leadership is currently serving on the University's Strategic Planning Committee and is optimistic that the impact of Servant-Leadership at MSOE will strengthen based on the strategic plan that will be published in early 2018. Goals as they relate to Outcome 5 for the 2017-2018 academic year include the following:

1. Secure funding to enable the Chair of Servant-Leadership at MSOE to transition to a full-time position for as long as needed,
2. Develop a strategic plan for Servant-Leadership at MSOE based on the University's strategic plan that is published in early 2018, and
3. Secure funding and institutional support to create a physical location for Servant-Leadership at MSOE that is visible to the public and easily accessible to all students, faculty and staff.

## **Outcome 6: An Excellent Year in Carrying Out the Elements of the Mission of the Chair**

### **Areas of Focus**

It has been another busy year for Servant-Leadership at MSOE. As always, we focused our efforts in three distinct areas:

- Collaboration with Classroom Instruction
- Serving the Greater Milwaukee Area
- International Initiatives

While there are some areas of overlap, we have categorized this year's activities into these areas. Additionally, we have made an attempt to clarify the initiatives that have become sustainable due to the commitment of our students. These initiatives were initially dependent on both the financial assistance from the endowment and coaching from the Chair of Servant-Leadership. However, they have become self-sustaining. This is the exact goal of the Chair of

Servant-Leadership at MSOE. We want to coach students to become servant-leaders who then continue these various initiatives without our help.

*“The best test as a leader is: Do those served grow as persons; do they become healthier, wiser, freer, more autonomous, more likely themselves to become leaders?”*

- Robert K. Greenleaf

While all of the initiatives that we begin are initially dependent in both ways, within a year or two, most are self-sustaining and require very few resources from our office. Instead, we help to keep the student body informed about the opportunities available to them and nurture the growth of new initiatives.

### **Collaboration with Classroom Instruction**

We gathered classroom collaboration information differently this year. We used an online survey that was sent to all full-time faculty members and was completed by 55 faculty members in September of 2017. We asked the following questions:

- What is your academic department at MSOE?
- What is your name?
- During courses you taught last year at MSOE, did you structure class(es) to allow students opportunities to strengthen attributes associated with servant-leadership? For example, did you include a service-learning component or teach servant-leadership philosophy/theory?
  - If NO... Why weren't servant-leadership aspects (SL defined) included in your course(s)?
  - If YES... During the 2016-17 academic year, in how many different MSOE courses did you include servant-leadership aspects in? (e.g. 1, 2, 3, etc.)
    - What is the course number and name of the *first* course you taught servant-leadership in?
    - During 2016-17, how many sections of XXX-### did you teach?
    - During 2016-17, how many students in XXX-### did you teach?
    - What course objectives in XXX-### aligned directly with servant-leadership aspects?
    - How was student learning of SL aspects assessed in XXX-###?

- What academic resources were used to engage students with servant-leadership philosophy/theory XXX-###?
- If you had unlimited resources to teach servant-leadership XXX-###, what would you do differently?

The following tables provide an overview of the results of this survey. The first table provides valuable insight to the departments that are integrating servant leadership within their courses most often. Of the 55 faculty members who completed the survey, 29 reported that they are integrating servant leadership aspects into their courses.

		During courses you taught last year at MSOE, did you structure class(es) to allow students opport...	
		Yes	No
What is your academic department at MSOE?	Business	7	4
	CAECM	5	5
	EECS	2	7
	HSSC	8	2
	Math	0	0
	Mechanical Engineering	5	6
	Nursing	1	1
	Physics & Chemistry	1	1
	Total	29	26
During courses you taught last year at MSOE, did you structure class(es) to allow students opport...	Yes	29	0
	No	0	26
	Total	29	26

**Figure 3: 2016-2017 Faculty Survey Results on Integration of SL aspects into their Courses**

The second table provides insight as to why faculty are not integrating servant leadership aspects into their courses. We will further investigate these responses to determine if there are ways to overcome these obstacles. At first glance, the more common reason why faculty are not integrating servant leadership into their classrooms is because they do not believe they understand servant leadership well enough to teach it. While we have been making an effort to provide more opportunities for faculty to learn about servant leadership, we will need to strengthen these efforts in the future.

Why weren't servant-leadership aspects (SL defined) included in your course(s)? (Select all that...)				
Course objectives didn't align with SL	I didn't know enough about SL to teach it	Course design did not accommodate a project	No resources available to fund projects	Someone else made course design decisions
2	0	0	0	1
3	2	1	0	0
4	4	3	0	1
0	2	1	0	0
0	0	0	0	0
1	4	1	2	1
1	1	1	0	0
0	1	0	1	0
11	14	7	3	3

**Figure 4: 2016-2017 Faculty Survey Results of Obstacles Impeding SL Integration**

Based on the results from the above survey, we updated the list of courses currently integrating servant leadership. This list includes 28 new courses\*\* since the 2015-2016 academic year. While we tried to provide you with as much information as possible about the way servant leadership is being integrated into these courses, we were dependent on the individual faculty members who teach the courses to obtain this information. As you can see, faculty had different thoughts on what it means to integrate servant leadership aspects into their courses. In some cases, faculty are only teaching various tenets. While other faculty are providing

students with robust experiential learning opportunities to develop a working knowledge of servant leadership application. In the future we need to determine if we should further define and measure the various levels of integration.

### ***Courses Offered at MSOE that incorporate servant-leadership theory or application***

#### **AE/CV-1001, Freshman Seminar**

- Required course for all Freshman Civil and Architectural Engineering and Construction Management students.
- Course included an introduction to servant-leadership by course coordinator.

#### **AE-2121, Fundamentals of Thermodynamics\*\***

- Course objectives of AE 2121 align primarily with SL defined attributes of Conceptualization, Foresight, and Stewardship. In the AE 2121 course, students study basic principles of energy conversion--how energy is used to operate devices and systems--in the context of the 1st and 2nd Laws of Thermodynamics. Instructors take it beyond that and require their students to write a short paper summarizing an article of their choosing that deals with the geopolitical and/or environmental impacts of energy use, particularly fossil fuels and the transition to renewables. Throughout the course, instructors stress the responsibility that engineers have socially to ensure that our society moves away from the use of fossil fuels in order to protect and preserve the environment. Students are required to CONCEPTUALIZE the "big picture" issues that result from energy use. They learn to use FORESIGHT in understanding the history of energy use (we talk about early refrigeration systems and the development of freons and their impacts), so that they can learn from this historical insight. And they learn about the importance of environmental STEWARDSHIP, and about how the welfare of the environment is linked to the welfare of communities and individuals. We like to think that the students who take thermodynamics from me learn not just about the mathematics and science surrounding the First and Second Laws, but that they learn what the societal significance of these scientific principles are.

#### **AE-4121, Environmental Science in Building Construction\*\***

- Listening, Conceptualization, Foresight, and Stewardship are emphasized as part of the learning goals for AE 4121. During part of the course, we have class discussions based on the book by Dr. Pamela Matson, et. al., titled, Pursuing Sustainability: A Guide to the Science and Practice. This book contains some controversial topics because it gets into the politics of the environmental movement. In having these discussion, instructors stress to students the importance of listening respectfully to their classmates, even if they disagree. Conceptualization, foresight and stewardship were integrated into the course as students were asked to 1) conceptualize the ideas of how industrialization,

construction, and energy use effects the environment and the people in undeveloped countries, (who bear the brunt of the negative impacts of global industrialization), and to 2) apply foresight and creativity in devising solutions to some of the environmental impacts, thereby demonstrating stewardship.

#### AE-4412, Engineering and Building Investment Economics

- Instructor incorporates community based projects that nonprofits are working on. The class is real estate development focused so these projects are typically central city sites. The philosophy is to assist these groups that are looking for help and have students do research and develop a feasibility proposal.
- Course is offered as a servant leadership opportunity to assist groups in need without really going over the tenets. Projects included: the Burleigh neighborhood, King Drive neighborhood, and Walkers Point neighborhood.
- The course objectives include having students learn and apply building investment economics principals to specific community development projects of their choice (building communities) (conceptualization), preparing students for the economics component of their FE exam (commitment to growth of people), and exposing students to real estate development past history to better understand and predict future trends (foresight).

#### AE-4311, Architectural Design

- Students completed designs and models for sites in the community as a way to give back and assist groups without resources. Projects that our students have worked on include the Harambee Neighborhood, Martin Luther King Drive neighborhood, and Layton Boulevard neighborhood.
- This is our CAECM students' first exposure to architectural design. Typically these projects help both the students and their community clients conceptualize, show a commitment to growth of people, and build communities in a limited and accelerated time frame.

#### AE-4712, Architectural Engineering and Construction Management Senior Project I\*\*

- This course is the start of the four course senior project sequence of classes that is a cumulating and application of all their past MSOE coursework. We typically seek 2-3 senior project real world clients and/or real world developments each year for all senior project sections. We try to focus on projects that are in communities of need, clients of limited means, or projects that are transformational. The specific servant-leadership principals mainly include conceptualization, listening, commitment to growth of people and building communities.

#### AE-6460, Life Cycle Assessment of Building Systems\*\*

- Conceptualization, Foresight, and Stewardship are integrated into the course objectives.
- Instructor has developed a collection of researched PowerPoint lectures over the last several years that demonstrate the connection between Life Cycle Assessment and stewardship.

#### BE-1005, Introduction to Biomedical Engineering\*\*

- Required course for all freshman biomedical engineering students.
- Instructors embrace servant leadership theory and teach is through example to their students.

#### BE-3000, 3001, & 3002, Biomedical Engineering Design Series\*\*

- All biomedical engineering students are required to take this design series.
- Instructors embrace servant leadership theory and teach is through example to their students. This is reinforced as the student teams work through their projects.
- Whenever possible, faculty try to select projects that are service orientated and positively impact society.

#### CM-2200, Building Construction Methods\*\*

- Course is designed to give students a better understanding of the various construction methods (concrete, wood, masonry and steel) through lecture periods, planning labs and construction labs.
- Students are expected to demonstrate their ability to work within a crew.
- Instructors present guidance to build team leadership.

#### CM-2300, Advanced Building Construction Methods\*\*

- Course is designed to give students a more in-depth understanding of more complex construction methods through lecture periods and construction labs.
- Students are expected to demonstrate their ability to work within a crew.
- Instructors present guidance to build team leadership.
- Labs were conducted at Habitat for Humanity homes to provide students with a real-life construction experience while serving the community.

#### CM-4311, Project Management I\*\*

- Students learn about various leadership theories as they relate to the construction industry.
- Students discuss how leadership plays a role in the construction industry as a whole.
- Students work in teams to practice their leadership skills.

- Instructors model servant leadership for their students throughout the course.

#### CV 490/492, Civil Engineering Senior Design

- Our civil engineering students learn about servant-leadership throughout their academic career at MSOE. During the two quarters that they take senior project, they get an opportunity to apply the tenets of this leadership philosophy as they work in teams.
- In 2016-2017, students worked on the dam project in Tanzania as described in detail in the international project portion of this report.
- All Civil Senior projects are done by a multi-disciplinary team of students representing the specialties within the program; Structural Engineering, Construction Management, Water Resources, and Environmental Engineering.

#### GE-205, 305, & 405 – Professional Growth

- Required course for all students in the Civil and Architectural Engineering and Construction Management Department.
- Students within this department are required to complete a total of seven hours of community service related to their profession prior to graduation.

#### GS-1001, 1002\*\*, & 1003\*\*, Freshman Seminar I, II, & III

Note: one of our goals for 2016-2017 was to integrate servant-leadership theory and application into the freshman experience at MSOE. This course is evidence of us achieving that goal.

- Required series for all freshman from all departments.
- All students enrolled were required to engage in some form of a civic activity in the form of experiential learning that involved the larger community and society outside of MSOE. This activity varies based on the instructor teaching the course.
- Technical writing component of this series culminated in the students producing and presenting a formal written report that solves a problem in society. The topic used last year was food and problems with our food system.
  - Students were given a scenario that introduced a problem that a person or family could face when it came to obtaining food. They had to go to a local grocery store and shop as if they were the people in the scenario with the same restrictions (budget, diet, and health) and figure out how they would obtain the food needed to survive.
  - Students were required to research a non-profit organization that deals with food in some way. Students used their website and other social media platforms to find information about the organization. They then produced a brochure meant to persuade people to get involved in the organization.

- Students read the book "Evicted". This book discusses events and people who live in Milwaukee, it really seemed to hit home with the students. They spent a lot of the class time discussing inequality in housing, segregation, poverty, etc...

#### GS-1010H, 1020H, & 1030H, Honors Seminar I, II, & III

- Details about this University Scholars Program are included in the Outcome 5 section as the changes to the courses are considered a Breakthrough Venture

#### HU-494, Creative Thinking

- Introduction to servant-leadership by instructor
- Students demonstrate flexibility in defining problems.
- Students learned to approach the solution to any problem with several different methodologies.
- Students learned to compare and contrast problem solving, critical thinking, and creative thinking.
- Students applied theoretical and pragmatic approaches toward the completion of a final, genuinely original and unique, project.

#### IE-340, Project Management

- This is the course that was the recipient of the Brady Foundation Grant several years ago. Since then, many of the instructors who teach this course have continued to coordinate with Servant-Leadership at MSOE to provide their students with real-life projects that help the community to execute as they practice their project management skills.

#### IE-440, Team Leadership/Facilitation

- Servant-leadership is one of the leadership theory discussed in this course.

#### MB-6000, Distributive Leadership for Educational Leadership Program

- Introduced servant-leadership as a leadership theory.
- Provided an online module with web links and videos on servant-leadership.
- Focused on international servant-leadership and presented a model to explore and resolve conflicting points of view.
- Completed four graded case studies (based on real life global business situations) using an international servant-leadership model.
- Multiple students noted servant leadership as part of their leadership image and leadership model for action in their leadership mission and vision paper.

### MB-6000, Distributive Leadership

- Introduced Servant leadership as a leadership theory.
- Provided online module with web links and videos on servant-leadership
- Multiple students noted servant-leadership as part of their leadership image and leadership model for action in their leadership mission and vision paper.
- Multiple REAL (Reflective, Evaluative, Applied, Learning) papers were written on the topic of servant-leadership.

### MB-6010, Leadership and the Global Achievement Gap\*\*

- Graduate students develop a deeper understanding of the roles of an administrator:
  - The administrator leads by advocating, nurturing, and sustaining a school culture and instructional program conducive to pupil learning and staff professional growth.
  - The administrator models collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.
  - The administrator acts with integrity, fairness, and in an ethical manner.
  - The administrator understands, responds to and interacts with the larger political, social, economic, legal, and cultural context that affects schooling.
- Students work through an Ethical Dilemma Case Study.
- Study review and discuss various resources focusing on character development.

### MG-660, Applied Organizational Behavior

- Introduced servant-leadership as a leadership theory.
- Provided online module with web links and videos on servant-leadership as an added module based on interest expressed by students.

### MB-6900, Project Management for Leading Change

- Servant-leadership is one of the leadership theories discussed in this course.

### ME-300, Modeling and Numerical Analysis\*\*

- Group projects are a key component of the course, and also encourage development of servant leader behaviors essential to good engineering practice in modern teams.
- Specific principles present in the larger group assignments are:
  - Listening: Actively listening to other group members led to great discussions while working on group projects. Every group member found that they could learn something from someone in their group. Communication is critical to engineering.

- Empathy: Group work brings empathy because it brings student outcomes together. The whole group will have more success when individual differences are understood and supported. Empathy leads to more effective groups, even when students don't initially see it that way.
- Persuasion: Students were responsible for determining what should go into their reports; no specific "formula" or "recipe" was provided. This resulted in discussions and persuasion between group members on what content would most effectively convey their work.
- Foresight: Projects were linked to future projects, so students could save time in the long run by making smart decisions up front, even if it meant a little bit more work in that week, significant time savings could be achieved in future weeks.

#### ME-485, Introduction to Environmental Engineering\*\*

- Student learn about community-centered decision making (community as stakeholders).
- Students study bottom-up solutions, rather than top down.
- Student make bettering the lives of community members a priority.

#### ME/IE-490, 491, & 492, Mechanical and Industrial Engineering Senior Project\*\*

- During this year long series, students design a device or a machine to help individuals in need or social organizations.
- The first term is focused on determining need, second term on design development and third on project implementation.
- In addition to serving a client need, students strength their ability to work with and lead teams.

#### MG-600, Management Principles\*\*

- The study of the principles and practices of servant leadership is one of the learning objectives of this course.

#### MG-765, Leading Project Teams

- The study of the principles and practices of servant leadership is one of the learning objectives of this course.

#### MG-800, Strategic Management\*\*

- The study of the principles and practices of servant leadership is one of the learning objectives of this course.

### MG-8042A, Doing Business in China: Domestic Coursework

- Servant-leadership is woven through the class.
- One class session of 11 is dedicated to Ethics and servant-leadership:
  - Guest Speaker – Al Klotsche (Past President of Brady Asia and current President of Mayline) addressed Servant leadership and ethics from a global perspective as a way to understand different perspectives.
  - Puzzle Teaching Group Assignment – Using the Kent book, each group of students reviewed a section of the book and discussed the meanings and applications. Then they taught others. Thus, the whole book was reviewed in student-lead discussion.
  - REAL papers for the week focused on the Reflection, Evaluation, and Applied Learning from the topic.
- Servant-Leadership project for international class was initiated. Team leaders were selected to lead components of the project. Fundraising occurred. All students were engaged.

### MG-8042B, Doing Business in China: International Travel

- The servant-leadership project was student lead. Students this year were a part of all the pre-trip planning to include weekly international calls, fundraising, packing and logistics.
- In China, students lead all aspects of assembling the library, educating students and gift distribution.
- Pre-trip reflections, in trip reflections and post trip reflections occurred via group discussions, reflection papers and surveys.
- In overall reflections and summaries of the trip, the servant-leadership aspect stands out as life changing for many.
- A journal entry was completed for the servant-leadership project.
- Follow up independent studies were created by some students on the topic of servant-leadership.

### MS-344, Organizational Behavior

- Servant-leadership was introduced as a leadership concept. A film was shown and discussed.

### MS-3411, Leading Project Teams

- Introduction to servant-leadership by instructor.
- All students receive a copy of A Case for Servant Leadership by Kent.
- The Raider School of Business committed to requiring all students in this course to lead a project that serves the community as part of this course.

- Students demonstrate a proficient understanding of leadership and project team terminology and the array of issues important to team leaders to be effective in a business team environment.
- Students learn to identify and anticipate challenges for effective project teams.
- Students practice team leadership, diagnose situations, and respond/resolve appropriately.
- Students strive to demonstrate characteristics of servant leadership in the project setting.
- An example of a course project was the work that one group completed for Milwaukee Empty Bowls – they met with the non-profit, assessed their computer software needs and produced a promotional video that could be used the following year.
- Each year, Servant-Leadership at MSOE works hand-in-hand with students in this class to help them find and follow through on the projects that they select.
- At the end of the term, students present to the stakeholders and the Chair for Servant-Leadership after writing a reflection essay on their experience in the course.

#### MS-4801, Project Management

- Servant-leadership is one of the leadership theories discussed in this course.

#### NU-2000, Health Concepts and Health Assessment

- While servant-leadership is not specifically presented in this course. The student apply the tenets of servant-leadership to the work they complete throughout the course.

#### NU-3300, Nursing Care of Acute Health Care Challenges\*\*

- Students learn to act on opportunities to apply aspects of caring by comforting and supporting clients and families in conjunction with reflection on one's approach to caring.
- Student practice using effective interpersonal communication skills and knowledge of health education principles to educate, support and partner with diverse clients and families to promote achieving higher levels of health.

#### OR-2000, Leadership and Teamwork

- Current trends and issues such as globalization and diversity are emphasized throughout the course.
- Emphasis is given not only to the theoretical context, but the practical consequences of leadership and teamwork with special emphasis placed upon servant-leadership.

### OR-3000, Applied Servant-Leadership

- Course taught by Chair for Servant-Leadership.
- All students received a copy of *The Case for Servant-Leadership* by Kent.
- Student studied the tenets of servant leadership and then were split into teams where they completed a term project that resulted in the development of a handout that could be used to lead Milwaukee Servant Leader Roundtables.
- Final assignment was a reflective essay.

### SC-310, Nanoscience and Nanotechnology

- Students prepared a hands-on demonstration and presentation on nanotechnology to share with high school chemistry and biology students at St. Joan Antida High school. There were about an equal number of SJA students as MSOE students. The presentations were less than ten minutes and they were able to present to small groups of SJA students. Time allowed for MSOE students to present to two small groups of SJA students.
- After the presentation, they wrote a reflective paper on their experience.
- Students were introduced servant-leadership philosophy by the leadership of the course instructor.

### SP-101, Language Acquisition through Servant Leadership\*\*

- This course was developed to give our English as a Second Language students an opportunity to practice speaking English while working on service learning projects.
- Students read *A Case for Servant Leadership* at the beginning of the course and learn about the tenets of servant leadership.
- Then students split into teams and work on real-life projects to help the community while developing as servant leaders and practicing their new language.
- This is a wonderful way to help these international students integrate into their new community.

### SS-453, American Government\*\*

- Students are encouraged to develop foresight and conceptualization through their study of American Government.
- The course textbook covers various leadership theories including servant leadership.

### SS-457, Current Affairs\*\*

- Students are encouraged to develop foresight and conceptualization through their study of current affairs.
- Students dissect leadership theory through their study of current affairs and look for examples of various leadership styles in the articles that they read.

### SS-461, Organizational Psychology

- Students are introduced to servant-leadership theory along with other styles of leadership.

### SS-462, Developmental Psychology\*\*

- Students apply course material to “real world” examples.
- Students recognize the diversity of life experiences that shape individual development.
- Students enhance their capacity for empathy through developing a greater understanding of the differences among us.

### SS-474, The Family\*\*

- Students provide evidence of a greater understanding of, appreciation of, and respect for human diversity.
- Students exhibit insight into the ways in which larger social, political and economic forces as well as biological and psychological forces impact relationships within the family.
- Students show an increasing objectivity and openness toward the needs of society as a whole, including an improved grasp of the determinants of social behavior; and an enhanced capacity to make decisions consistent with his/her changing roles in society.
- Students enhance their capacity for empathy through developing a greater understanding of the differences among us.

### SS-476, Death and Dying\*\*

- Students think about death & dying in a culturally competent manner.
- Students discuss topics of death & dying openly.
- Students distinguish ways in which death, dying, and bereavement differ across the lifespan.
- Students perceive everyday influences of death & dying.
- Students enhance their capacity for empathy through developing a greater understanding of the differences among us.

### UX – 253, Global User Research and Communication\*\*

- Students learn how culture, in and of itself, influences communication and how it interacts with social, psychological and environmental factors to influence communication.
- Students study cultural similarities and differences in communication.
- Students work to understand cultural issues that affect communication effectiveness.
- Students learn about ethical issues in communicating with someone from a different culture or ethnic group.

### UX-333, Knowledge and Content Management\*\*

- Students study the difference between data, information, and knowledge.
- Students learn to articulate the difference between tacit, explicit, and embedded knowledge.
- Students analyze and evaluate tangible and intangible knowledge assets and understand current knowledge management issues and initiatives.
- Students evaluate the impact of technology including telecommunications, networks, and Internet/intranet role in managing knowledge.
- Students develop a working knowledge in the area through focused projects.

## Serving the Greater Milwaukee Area

Our goal is to provide as many opportunities as possible to help students learn about the community that surrounds our campus. There are many non-profits within walking distance of our campus that do wonderful things to support the least privileged in the Greater Milwaukee Area. It is easy for all of us to ignore the struggles of others who live just beyond our comfort zone – these events below are examples of how we support students who have a desire to serve this population. All of these initiatives are led by students and many have been going on for so many years that we forget that they originated through sponsorship from the Office of Servant-Leadership. Our role is to help insure that they continue to be sustainable initiatives by mentoring student leaders to coach newer students to become future leaders.

The following are descriptions of the most notable local servant-leadership projects that students organized and led during the 2016-2017 academic year. While the university offered dozens of other opportunities for our students to engage in community service throughout the year, for purposes of this report, one-time volunteer opportunities are excluded from this list.

**Blue Lotus Spring Clean Up** – Every year, students from MSOE head out to Blue Lotus Farm and Retreat in Newburg, Wisconsin to help the facility get ready to welcome community members for the summer months. MSOE has been working with Blue Lotus since 2006 and uses this spring visit to help maintain their relationship with Blue Lotus and make sure that the deck they built is well maintained. This is an activity that our students look forward to all winter long!

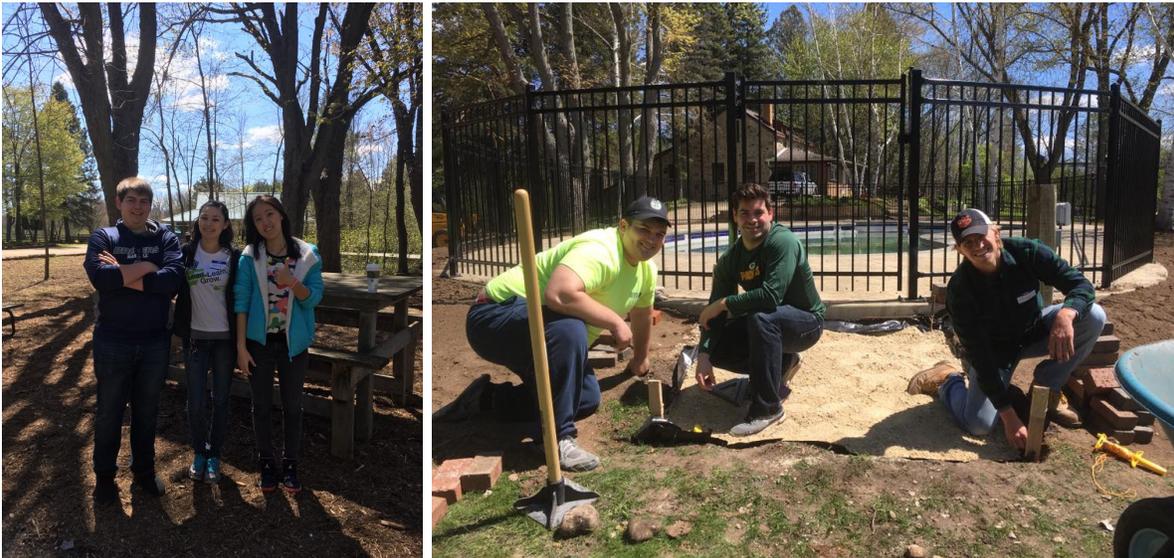


Figure 5: Blue Lotus Spring Clean Up

**Milwaukee Empty Bowls** – Servant-Leadership at MSOE was the sponsored the 18<sup>th</sup> annual Milwaukee Empty Bowls event. The event uses art to heighten hunger awareness and raise funds that help provide food pantries and meal programs in Milwaukee. Last year there were over 300 volunteers, 35 restaurants, three bakeries and more than 2,000 attendees who raised a record \$66,000 for seven charities. Servant-Leadership coordinated MSOE’s involvement of over 80 student volunteers. Additionally, throughout the year, MSOE students supported Milwaukee Empty Bowls in their needs as a non-profit. For example, a student in Leading Project Teams produced a promotional video for the non-profit. Our partnership with Milwaukee Empty Bowls has grown throughout the years and we are pleased to play a larger role in this amazing community event.



**Figure 6: MSOE Students at the 2015 Milwaukee Empty Bowls Event**

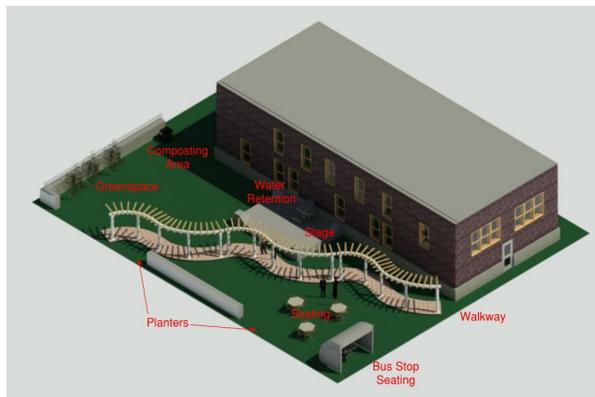
**Outreach to St. Joan Antida High School** – MSOE professors, Dr. Cynthia Barnicki of Mechanical Engineering and Dr. Anne-Marie Nickel of Physics and Chemistry presented to two classes of 25 students each at St. Joan Antida High School. The duo received a research grant in 2015 which became a catalyst to this partnership. Nickel and Barnicki have

continued with the relationship through sponsorship of Servant-Leadership at MSOE. Now these professors volunteer their time to introduce minority high school students to the exciting world of chemistry through chocolate. “We talked about the chemical makeup of the molecules, why chocolate is special, tested the hardness of it, talked about nucleation – how you can ‘ruin’ chocolate by not cooling it correctly,” Barnicki said.



**Figure 7: Drs. Barnicki and Nickel working with St. Joan Antida High School Students**

**Tricklebee Café Garden Renovation** – MSOE students worked with the owner of Tricklebee Café on North Avenue to design and begin the renovation of an outdoor garden adjacent to the café. Tricklebee is one of the areas ‘pay as much as you can’ restaurants that provides opportunities of community members to pay-it-forward and support those in the area that are unable to pay for food. Servant Leader Faculty Fellow, Doug Nelson from the Civil and Architectural and Construction Management Department has led this effort. Students from Habitat for Humanity and the Professional Construction Society student organizations have contributed to his project. Construction on this project is expected to continue into the 2017-2018 academic year.



**Figure 8: MSOE Student Rendering of Tricklebee Café Garden Renovation**

**MLK Day of Service at MSOE** – To commemorate the servant leadership of Dr. Martin Luther King Jr., MSOE students participated in a dedicated day of service on January 16th, with student organizations getting involved. A school supply drive was held that donated supplies for the students at Messmer Catholic Schools. Students crafted appreciation cards for those serving our country. Inspirational notes were written for women who are battling breast cancer. A total of 50 snack boxes and 50 birthday boxes were put together for the Children’s Hospital of Wisconsin. The numerous service activities made it easy for students to get involved and participate in the event!



**Figure 9: 3rd Annual MLK Day of Service at MSOE**

**Annual School Supply Drive** – Every year in conjunction with our MLK Day of Service, the MSOE Bookstore collects donations for school supplies. These school supplies are sorted and packed during MLK Day of Service and then a different student organization is invited to deliver the supplies to a school in need. This year, students from Lambda Zeta Nu Sorority were selected to make this special delivery. The first graders at Messmer Saint Rose Elementary School were very excited! This year, students at MLK Day of Service also wrote cards to the students who were going to receive the supplies – this added touch was appreciated by all involved.



**Figure 10: Students from Messmer Saint Rose on Donation Day**

**Habitat for Humanity** – Servant-Leadership continues to sponsor Habitat for Humanity throughout the year. Last year, six women from MSOE’s Chapter of Habitat for Humanity participated in National Women Build Week in Milwaukee. The women-only build was a great learning experience for our students. Habitat for Humanity also hosted the first annual MSOE Shack-a-Thon to raise awareness of homelessness in Milwaukee. Finally, the student group participated in Spring Break Collegiate Build Week in Beaumont, Texas.



**Figure 11: Habitat for Humanity Shack-a-Thon**

**Ronald McDonald House** – Throughout the academic year, small groups of students select and prepare a meal for the families staying at the Milwaukee Ronald McDonald House (RMH) near Children’s Hospital of Wisconsin. Last year 12 students participated in these visits where they served approximately 100 guests. This ongoing Servant-Leadership activity is a great example of how the Milwaukee community benefits from the service of our students. This is also a great way for students to practice the tenet of empathy when they visit with families who are staying at RMH to be near an ill child. Since this is an ongoing activity, many students from all over campus get the opportunity to participate every year. This is a brief write up about this activity by one of our student servant leaders:

*“Volunteering at the Ronald McDonald House is by far one of my favorite events, and believe me, I go to a wide variety of events. There is nothing better than going to the House and having the opportunity to feed a family some delicious home cooked food. I would never be able to imagine the hardship that the families are going through who we serve. They are all going through some of the most difficult times of their lives and having the opportunity to cook a meal for them can be one of the most positive things they experience during this time. Another benefit to cooking meals at the house is that our college students have the opportunity to cook in a nice kitchen, which we do not experience often while we*

*are in college. These positive experiences for both volunteers and guests have an unforgettable effect.”*



**Figure 12: MSOE Students Preparing a Meal at RMH**

**Christmas on Campus** – In partnership with Our Next Generation (ONG), Servant-Leadership at MSOE student leaders provided kids a fun day filled with crafts, pictures, games, books, and photos in front of a festive holiday set up. Together, the volunteers and participants listened to holiday music while students from MSOE organized these different events for the kids, allowing them to enjoy the holidays and make/receive gifts in preparation for the holiday season.



**Figure 13: Christmas on Campus**

**Matt Stachelski Memorial Bike Ride** – In July of 2017, the User Experience and Communication Design degree program (formerly known as Technical Communication) enacted the second Annual Matt Stachelski Memorial Bike Ride. Working in conjunction with the *Summer in the City* event that is orchestrated by the Development Office, Dr. Shalamova and Dr. Howell lead the implementation of a bike ride that honored the memory of Matt Stachelski, a 2011 graduate. \$5,615 were raised for a scholarship that will go to an MSOE student who shares the characteristics of Matt: non-traditional, hardworking, and service oriented.

Matt died in a house fire in October of 2015. It was important to recognize Matt for being a student who represents the best of what can come from MSOE. He was the first Research Assistant for the office of Servant-Leadership and wrote a report that helped the Chair understand the need to place greater emphasis on leadership, since the model at that time was based more in service learning. Matt also participated in numerous service initiatives, taking a leadership role in each one of them.

Matt's friends and family participated in the memorial bike ride that started at MSOE, went up to the beer garden in Estabrook Park, and returned back to the MSOE campus. At Estabrook Park, there was an opportunity for the participants to say a few words in remembrance of Matt, an opportunity that was healing for all involved. Visit the Facebook page at <https://www.facebook.com/MStachMemorialBikeRide/>.



**Figure 14: Matthew Stachelski Memorial Scholarship**

**Hat and Mitten Drive** – Our Resident Housing Association organized a hat and mitten drive to help keep our community members warm during the winter months. Our students and their families collected items to donate to Cathedral Center of Milwaukee.



**Figure 15: Hat and Mitten Drive**

**Respite Day** – This annual event enables MSOE students to spend the day with kids who spend a great deal of time at the Children’s Hospital. The parents of the children get the opportunity to take an afternoon off and rest. Meanwhile, over 100 MSOE students receive the educational and interpersonal opportunity to interact with kids with extreme mental and physical challenges. Both the student leaders and volunteers get so much out of participating in the service activity that is organized by servant leaders.

## International Initiatives

The Office of Servant-Leadership and the Office of Academics partnered to create the International Leadership Committee in January of 2014. This committee is now responsible for generating an annual call for proposals to delegate an award of \$20,000 (contributed evenly from each department) to international initiatives that allow our students to apply what they are learning in the classroom while practicing the tenets of servant leadership to serve the global community.

**Library Project, China** – A class of 10 MSOE graduate students from the Doing Business with China program participated in a Servant-Leadership project of setting up an English language library in the Hunan Province of China. The team set up a reading library, and provided books. The project was planned and executed by these students to provide children at this rural school an opportunity to learn English.

The students who participated in these two trips were asked to read the Kent book and write a reflection paper upon their return. Below is an excerpt from one of the student papers.

*“The servant leadership piece of the trip was the most rewarding, personally. I had never been involved in this type of work so I didn’t know what to expect. ... On a personal level, I knew this is where the biggest growth opportunity would be for me. It’s an amazing feeling – one that I cannot articulate well – being in the elements and seeing firsthand what the power of money, time, and simply love can do. ... The idea behind the project was to provide a library and resources to the school – our time, energy, and monetary help to change the teachings and lives of the children who attend the school. Never did I imagine that I would have left with a greater gift. ...”*



Figure 16: MSOE Student in China

**Tuk-Tuk Bridge, Guatemala** – Ten students, representing five majors, participated in the most recent EWB trip, which took place Feb. 22 – March 6 of 2017 in the community of El Temal, Guatemala.

Joined by Davis and three professional mentors, on this project students set out to design and build a cable suspended bridge that would be passable by tuk-tuks –three-wheeled taxis that are commonly used for transportation but unable to travel long distances. Because travel by other means is costly and time prohibitive, a bridge that accommodated tuk-tuks would make medical care, markets and schools more accessible.

MSOE senior civil engineering major Logan Bertling, who served as project manager for the El Temal project, anticipated that there would be challenges. “Normally this style of bridge can only accommodate pedestrians, livestock and motorcycles,” Bertling said. “We knew it would require many modifications.”

This is the first cable-suspended bridge designed specifically for tuk-tuk travel and has several unique design features. The bridge is 50 percent wider than a typical pedestrian bridge and, in order to reduce the slope for tuk-tuks, the cables are tighter than usual; a concrete and stone structure weighing 200,000 pounds anchors the cables at each end of the bridge.

Students had their first look at the site in early 2016 with an engineer from EWB-USA’s Wisconsin Professional Chapter. At that time, they conducted two field assessment trips to survey the river crossing and perform soil tests. During the Spring Quarter, they conducted an analysis that included preliminary engineering and cost estimates to determine the appropriate bridge type. They submitted their report to EWB-USA headquarters for approval. Over the summer and into the fall, students split into teams to address the various portions of the project – cable design, wood deck design, stone masonry tower design, concrete anchor design, drafting and safety. After completing the bridge’s structural design, students calculated final cost estimates. After the reports were approved by the EWB-USA, students planned the construction process and coordinated with their in-country foreman to order materials and arrange site excavation.

When students arrived on the job site in El Temal they quickly learned they’d need to make some adjustments. The excavation and soil conditions were different than planned, which required the students to redesign portions of the bridge while on site within the constraints of schedule and materials purchased. “The majority of time we were on site we were working behind schedule and there was worry amongst the group that we may not be able to complete the bridge before flying back home,” Bertling said.

The group had known that construction complications would mean leaving the community and foreman to complete the project, but pushed hard to make up lost time. “With the

community's hard work and persistence we worked a few long days and adjusted the order of our tasks to optimize the work conditions," said senior architectural engineering major Jacob Haen, who served as cable lead on the project.

Sophomore mechanical engineering major Maia Heineck, who was the health and safety officer on the trip as well as the concrete lead, recalled working late into the night on one occasion. "We had to take out our phones and use them as flashlights to check the consistency of the concrete," she said. "Finishing that night allowed us to stay on schedule."

Working in partnership with the community—about 50 area residents joined students on the job site each day—the bridge was ultimately completed on time. "The most memorable part of the trip was seeing the tuk-tuk cross the bridge with the whole community there watching," Heineck said. "The community was excited; they had a new bridge that will connect them to other towns. I felt accomplished."

The value of EWB trips to students across study areas is significant, providing students with opportunities to not only grow their technical skills, but also in leadership and global awareness, explained advisor Davis. Students like Bertling appreciated the well-rounded educational experience.

"We were exposed to all aspects of the life cycle of the project," Bertling said. "I learned there is much more beyond performing calculations that goes into being an engineer and making a project successful."



**Figure 17: MSOE EWB Students and Faculty**

**Global Brigades, 2016-2017** – More than 70 MSOE students gained hands-on experience in their areas of study on a multi-project service trip to Nicaragua. The trip was organized through Global Brigades, a non-governmental organization that empowers under-resourced communities to meet their health and economic goals with help from student volunteers, industry partners and local residents.

Global Brigades-MSOE, the university's student chapter, has sent teams to locations in Central America for the past four years. Each team, or brigade, has worked collaboratively with community members to support medical, water and infrastructure projects. On this most recent trip, Feb. 26 through March 4, MSOE introduced the Public Health Brigade – a team focused on empowering rural communities to prevent common illnesses through in-home infrastructural development, community leader training and health education.

“As part of the strategic plan for Global Brigades-MSOE, we want to add new brigades based on student interest,” said Dr. Patrick J. Jung, lead faculty advisor and Public Health Brigade advisor. “Next year, we plan on adding an Environmental Brigade.”

Also on this trip were the Water and Medical Brigades. The Water Brigade works with local engineers and technicians to construct water systems custom designed for rural communities. Team members assist in digging trenches, connecting pipes, installing in-home water faucets and providing education to improve family health. The Medical Brigade provides access to health services in rural communities alongside doctors, staff and local leaders. In addition to the labor they provide, students also make program contributions that allow for the purchase of construction materials that are prohibitively expensive for residents of these countries. Members of each brigade spend three days working on their own projects, then take the fourth day to participate in the project of a different brigade – allowing students to broaden their experience.

“The value of Global Brigades is that students see how the majority of people in the world actually live,” Jung said. “They also see that having degrees in nursing and engineering can be valuable to people in developing countries.”

### Medical Brigade

The Medical Brigade is the first group to go into a community. They provide basic health checkups and medications for common problems such as parasites, high blood pressure and skin conditions. They also provide basic dental care and cavity prevention. The Medical Brigade—which included 41 students, four faculty and Dr. Bernard Cohen, MSOE Regent—worked in Salmeron La Garnacha, a community of about 900 located in the Matagalpa region of Nicaragua.

“We spent three days hosting a free medical and dental care clinic for members of the community,” said senior Rachel DiGrazia, a biomedical engineering major. “Some people walked three hours with their families to receive much needed medications, consultations and dental work for free.”

Patients ranged in age from one week to 80 years old. Students provided support and assistance to the Nicaraguan medical professionals leading the exams. Dentists filled cavities and extracted infected teeth while doctors assessed injuries, diagnosed illnesses and treated symptoms.

“The most important thing to realize about Global Brigades is that the point is to help communities become self-sustaining,” DiGrazia said. “We are just a small part of the bigger goal.”

### Water Brigade

Not far behind the Medical Brigade is the Water Brigade. The Water Brigade builds freshwater systems to provide clean drinking water; this ensures that the problems solved by the Medical Brigade—particularly parasitic infections—are unlikely to reoccur. The MSOE Water Brigade, which consisted of 20 students and one faculty member, worked on a project providing clean water to five villages with a total population of about 1,500.

“The work consisted of filling in trenches with dirt and rock,” said junior Marcus Welsh, a mechanical engineering major. It was the last step in the process; previous brigades had dug the trenches and laid the pipe. “Seeing the entire water system was empowering. Not only was it impressive to see the amount of work that went into it, but we could see that our work eventually leads to something of scale that will empower the communities it serves.”

### Public Health Brigade

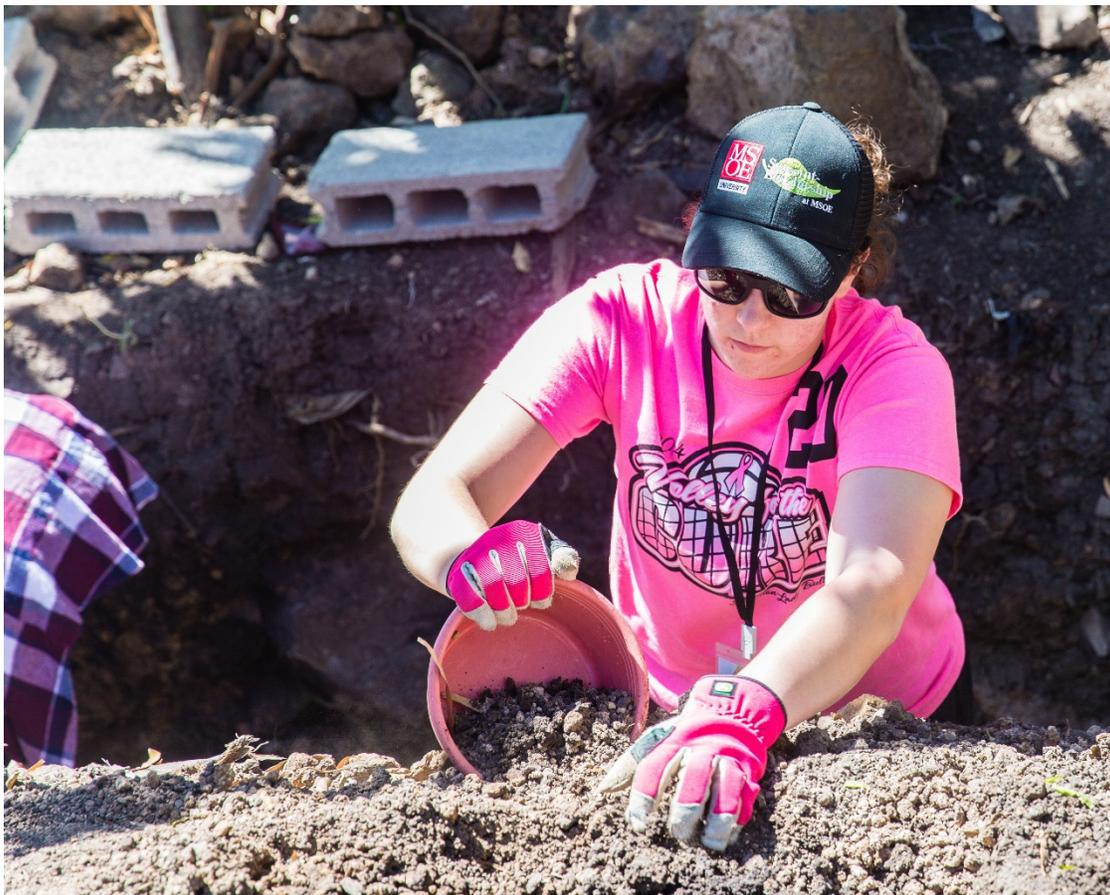
Once a community has fresh water, the Public Health Brigade steps in to build sanitary stations for homes. These include a flush toilet, a septic tank, a shower and a wash basin. Students poured concrete to replace existing dirt floors, which are also a source of parasitic infections. The Public Health Brigade, which included 10 students and one faculty member, worked in Encuentros de San Gabriel, a village of about 600 people in the Jinotega region.

“The structures were made mainly from cinder blocks, however, we also had to mix cement on-site which was an exhausting process,” said Welsh.

After the fifth day of the trip, students made a presentation about topics relating to health and water, which included safe waste disposal systems and preventing water contamination.

“The most memorable part of the trip was meeting the community and the families we worked with,” said sophomore Samantha Felhofer, a mechanical engineering major. “Getting to know the situation that the families are in and their daily tasks was very eye opening.”

Sophomore Desarae Echevarria, a mechanical engineering major, said she was able to make real-world connections to a class she recently took in fluid mechanics. She was also able to practice her Spanish speaking skills. The experience also made her reevaluate her future. “The trip made me reconsider where I want to work and who I want to work for because Global Brigades is something I love to do.”



**Figure 18: Global Brigades**

**Kilimanjaro Region, Tanzania** – A group of civil engineering students traveled to Tanzania as part of a senior project focused on a dam construction feasibility study. The project was initiated by senior Constantine Moshi, an international student with a special connection to Tanzania – it’s the place he calls home.

Students and faculty from MSOE and the University of Dar es Salaam (UDSM) gathered at the proposed project site where they conducted field research in December 2016.

“The long-term goal of the project is to provide water for non-potable uses,” Moshi said. The dam would serve a village east of Mount Kilimanjaro – population 10,000 – whose economy depends heavily on agriculture and irrigation.

Moshi was introduced to the concept of working with people of different cultures on engineering projects through his involvement with the MSOE Chapter of Engineers Without Borders. Seeing how students and communities benefited from these experiences, Moshi wanted to expand opportunities to Tanzania. He shared his idea with several faculty members and the Chair for Servant-Leadership at MSOE and concluded the best approach was an independent service-based senior project.

“In 2015, I visited several villages and talked to the local leaders to understand their needs,” Moshi said. When he returned to Milwaukee, he submitted a servant-leadership proposal based on his findings. It was approved.

“We strive for a multi-disciplinary team in senior project, and the dam feasibility study had the right mix of needs between specializations in the civil engineering program – structural, construction management and water resources,” said Doug Nelson, coordinator of civil engineering senior projects.

Through the support of Servant-Leadership at MSOE, a total of 10 MSOE students participated in the project; four of whom traveled to Tanzania in December 2016 to meet with their partners – 10 students from the University of Dar-Es-Salam – and collect data. They split into four teams.

“My primary responsibility for this trip was surveying the site that we selected,” said senior Sean Casey, structural engineering major. This was very important because it was the basis for all of the work that we would go on to do.”

In addition to surveying, student teams evaluated soil and rock; gathered rain and river gauge information; and researched local construction practices, including materials, costs, and cultural aspects that would be considerations in the final design. “I wanted to be a part of the travel team because I love experiencing new cultures, said senior Lauren Itzin. “I also find it very beneficial to visit the site to better understand the project you are working on. It helps you visualize what you are designing.”

Four faculty offered guidance on the trip: Dr. William Gonwa (water resources), Dr. Jera Sullivan (construction management), Prof. DeAnna Leitzke (Chair of Servant-Leadership), and Dr. Todd

Davis (structural engineering). They were joined on the trip by Civil and Architectural Engineering and Construction Management (CAECM) Department Chair Blake Wentz.

During the spring semester, MSOE students split into two design teams of four students, with two student-consultants who worked with both teams. The teams independently developed three dam alternatives chosen from the winter quarter. Throughout the process MSOE teams were in regular communication with USDM students, who conducted the labs and soil tests. The preliminary design on viable dam options – a total of six – were assembled into a feasibility study. “It’s not to the point where it can be built tomorrow,” Casey said, “But I think it will give the local community enough information to make a decisions if there is something they want to pursue further.”

The project also opened a dialogue about future partnerships between MSOE and UDSM, including the possibility of student/faculty exchanges. “My goal is to encourage and motivate young professionals – especially in developing countries where continuous education and professional growth is not emphasized like it is in the U.S.”



**Figure 19 - MSOE and UDSM Students in Tanzania**

## Other Efforts

As mentioned in Outcome 5, Servant-Leadership at MSOE has begun organizing and hosting Servant Leader Roundtable events in the Milwaukee area. During the 2016-2017 academic year, we hosted four of these roundtable events. All MSOE faculty, staff and students were invited to attend these events in addition to the Milwaukee Servant Leader group. Each of these roundtables was well attended and sparked verbose dialogue between a diverse group of participants. The topics for the last two roundtables of the year were generated as part of a term project in Applied Servant Leadership. Students in this class were asked to craft a one-page handout that would be distributed at these roundtables as the catalyst to conversation. This exercise was well received by both the students in the class and participants at the roundtables. Servant-Leadership at MSOE wishes to continue to grow these gatherings and attract more participants from both on campus and in the downtown business and non-profit district.



**Figure 20: Participants at our First Milwaukee Roundtable**

In addition to the above efforts, I have spent the last year continuing to increase my involvement in the Servant-Leadership community throughout Wisconsin. Below is a list of events that I attended during the past academic year and summer. I have enjoyed meeting with many like-minded professionals and these opportunities have helped me to grow as a servant-leader.

- Presented to Engineers Without Borders MSOE Student Chapter – Applied Servant Leadership
- Wisconsin Servant-Leadership Summit Member
- United Way Cabinet Member and Campus Engagement Committee Co-Chair

- Three Holy Women Global Solidary Committee Member
- International Leadership Committee Chair at MSOE
- Hosted the Milwaukee Fall Cities Tour – Implementing Servant Leadership
- Hosted the Milwaukee Spring Cities Tour – Self Awareness
- Presented at a Residence Assistant Training Session – Introduction to Servant Leadership
- Presented at New Faculty Training Session – Introduction to Servant Leadership

### **2017-2018 Goals for Outcome 6**

It has been a wonderful year for fulfilling the mission of the Chair at MSOE. Goals as they relate to Outcome 6 for the 2017-2018 academic year include the following:

1. Further analyze the faculty survey to develop a better understanding of how faculty interpret integration of servant leadership into their courses,
2. Further analyze the faculty survey to develop a better understanding of how we can increase the quality (training) and quantity (resources) of academic servant leadership integration, and
3. Modify the survey to provide us with additional measures next year.

### **Outcome 7: A Servant Leader that Leads at an Element or Segment of Our World**

The intersections of Dr. Kelly Ottman’s professional accomplishments, educational history, service experience, and personal mission center on Servant Leadership. Ground in her own academic training, she helps develop those she works with as Servant Leaders. At MSOE she integrates Servant Leadership education, using multiple learning strategies into the undergraduate and graduate (MBA, Educational Leadership, and Masters in Engineering Management) courses she teaches. Application of this understanding is further developed through the undergraduate Honors program and the graduate Doing Business with China program. Aligned with the tenants of Servant Leadership, self reflection is primary to the learning process. The impact of the education extends to those that the students touch – their families/friends, the organizations they work for/lead, and communities they serve locally and globally. Beyond MSOE, Dr. Ottman, shares her Servant Leadership experience, research and passion through local, state and international presentations at conferences. She also develops corporate leaders and leadership teams in Servant Leadership through service learning and coaching. Although she has been recognized for her work at an international level, most fulfilling is when students and leaders are transformed through embracing Servant Leadership.



## Dr. Ottman's Professional Experience

MSOE University, Milwaukee, WI - 2007-present

Professor, Rader School of Business

- Teach MBA, Masters of Science in Engineering Management, and MBA Educational Leadership and Undergraduate Honors students in the areas of leadership, organizational behavior and management.
- Coordinate the Doing Business with China Program. Partner with over 25 corporations and engage over 100 leaders locally and in China. Signature is a Servant Leadership Library Project in rural China.
- Serve(d) as Chair of University committees to include University Mission and Values, Faculty Development, Promotions, Faculty Grants, and International Servant Leadership.

University of Wisconsin Milwaukee, Milwaukee, WI – 2000-2008

Full-Time Instructor, Lubar School of Business

- Taught in traditional, undergraduate and graduate programs, and the Executive USA and China MBA degree programs.
- Conducted leadership seminars for industry leaders from around the world.
- Awarded the University Outstanding Teaching Award for Academic Staff.
- Selected as University Center Scholar for Teaching and Learning.

Marquette University, Milwaukee, WI – 1995-2000

Full-time Lecturer, College of Business Administration

- Taught EMBA, MBA and traditional undergraduate leadership and organizational behavior courses.

Design Team and Faculty, College of Professional Studies

- Served on design team for the College of Professional Studies.
- Taught adult learners leadership, ethics, organizational behavior and team development.

Horizon Home Care and Hospice, Milwaukee WI – 1991-1996

Vice President of Administrative Services

- Assured profit margins and increased growth (\$12 million budget).
- Facilitated health system integration (47% increase in system admissions in one year).
- Developed and evaluated programs and services to meet client needs (1,100 total active clients).
- Lead state and federal survey processes.
- Facilitated multiple reorganization processes.
- Lead self-managed teams in multiple hospital settings.
- Interacted with Board of Directors.

### **Dr. Ottman's Consulting Experience**

As an independent consultant, Dr. Ottman work with local, national and international executive leaders, management groups and boards of directors from an array of industries and professions. These range from executive steel workers to executive nuns. She has conducted on-site consultation and education with Asia-Pacific leaders and teams, and facilitated strategic planning for businesses and professional organizations. As an Executive Coach, she assist individuals in the areas of leadership and career development. Servant leadership is primary to her work. Often the educational development process centers on service to others as a way to develop as a leader. Clients have included; Brady Corp, Charter Steel, Chicago Faucet, Direct Supply, Johnson Controls, Marquette University, Schneideder National, and Sensient.

### **Dr. Ottman's Board Experience**

#### **Service ON Boards**

FIRST Robotics – Wisconsin Advisory Board – 2011-2015

- Executive Board Member and Chair of VIP Events

Accelerated Learning Programs Charter School, Oshkosh School District – 2005 - 2008

- President of Board

Oshkosh Lighted School House, Oshkosh WI – 2009 – 2012

- Board Member

Team Based Learning Collaborative (International Prof. Organization) – 2009-2014

- Board Member and Scholarship of Teaching and Learning Chair

Wisconsin Visiting Nurses Association Professional Advisory Board – 2001-2008

- Board Member

Wisconsin Forward Award – 2001-2003

- Board of Examiners

Association of HealthCare Executives – SE Wisconsin – 1989-2001

- President, VP, Chair of Education, and Chair of Membership

Wisconsin Bio Ethics Network – 1993-1996

- Board Member

National Therapeutic Recreation Society – 1986-1990

- Board Member and Chair of Membership

#### **Service TO Boards**

As a consultant, Dr. Ottman has advised board of directors in mission development, strategic planning, and board roles/functions. Below is a select list of clients.

- Waukesha County Economic Development Corporation
- Wisconsin College Admissions Councilor Association
- Wisconsin FIRST Robotics

### **Dr. Ottman's Educational Experience**

Ph.D. - Adult Education with an emphasis on Organizational Leadership, University of Wisconsin – Madison

M.P.A./M.A. - Public Policy and Administration and Health Service Administration, La Follette Institute of Public Affairs at University of Wisconsin – Madison

B.S. – Therapeutic Recreation, University of Wisconsin – La Crosse

### **Dr. Ottman's Personal Experience**

Dr. Kelly Ottman is a proud mother of two children (16 year old and 24 year old). She has a passion for exploring different cultures through travel and believe in diversity and inclusion from multiple perspectives (Awarded Friend of Rockwell Automation Asia Pacific in 2015). She rejuvenates herself through gardening, yoga, camping, kayaking, and hosting gatherings of friends. Aligned with Servant Leadership, she has been transformed through coordinating/engaging in local and international service projects. Locations have included China, Mexico and Vietnam. For over 25 years she has coordinated a Christmas Eve program for the homeless in Milwaukee, WI.

### **Dr. Ottman's Servant Leadership Awards**

Library Project, Hunan, China, June 2017

- Recognized by The Library Project, a non-profit organization that donates books and libraries to under financed schools in China and Vietnam (<http://www.library-project.org>), for providing Servant Leadership in China since 2010.

### **Dr. Ottman's Servant Leadership Presentations**

#### **International Conferences (Peer Reviewed)**

International Engineering Education Conference

- Ottman, C.K. (November, 2017). Presentation at the International Engineering Education Conference held in Flagstaff, Arizona.

Lilly International Conference

- Ottman, C. K. (January, 2017). Transformative Leadership Development through Short-term Study Abroad Integrated with Servant Leadership. Presentation at Lilly Conference. Austin, Texas.

International Society for the Scholarship of Teaching and Learning (ISSOTL), Milwaukee, WI, October 2011

- Co-presented workshop entitled Servant Leadership: Driving curriculum integration through an institutional multidisciplinary approach on October 21, 2011 in Milwaukee, WI. Co presenters included Alicia Domack, David Howell, Anne-Marie Nickel, Kristin Shebesta and one graduate and one undergraduate student.

- Coordinated a partnership with MSOE's Servant Leadership, Project Kenya and the ISSOTL conference to provide conference bags. The bags were hand made by women in an urban slum of Nairobi, Kenya.

International Council on Adult and Experiential Learning, Chicago, IL November, 2011

- Facilitated Round table Discussion entitled 'Going Global' with busy, working adult learners on November 11 in Chicago, IL. Highlighted Servant Leadership.

Exploring Leadership Learning and Theory in Asia, Penang, Malaysia, February, 2011

- Ottman, C.K., Klotche, A., Phan, T. (February, 2011). EXPERIENTIAL SERVANT LEADERSHIP: INCREASING THE EFFECTIVENESS OF AN ASIAN LEADERSHIP TEAM.

Presentation and Paper. Penang, Malaysia.

- *This paper presents a case study of an experiential leadership team development process within Asia and centers on the use of problem-based teambuilding through a servant leadership project. The intrinsic and instrumental case study examines the challenges of the servant leadership project while bringing to light culturally based dilemmas. Feedback and decision-making processes, supported by team trust and servant leadership principles, are recommended to uncover deep-seated diversity and promote team development. Future research should explore the relationship of trust antecedents to team development and the unpredictable servant leadership settings to exposing team diversity.*
- Attended the first international conference on Exploring Leadership Learning and Theory in Asia (ELLTA) conference held February 15 -17 in Penang, Malaysia <http://www.ellta.org/>.

### **Invited Presentations**

Bemis Corporation, Appleton, WI, April 2014

- Invited speaker for the Bemis Women's Network on the topic of Lead Yourself, Lead Others, and Lead Bemis. Over 250 members were in attendance for this interactive presentation that was ground on Servant Leadership.

Servant Leadership of Wisconsin, Milwaukee, WI, May 2013

- Invited speaker for the Servant Leadership of Wisconsin City Tour on May 21, 2013. The program was hosted by MSOE. Presentation entitled Emergence of Servant Leadership across Global Cultures focused on the integration of Servant Leadership, leadership development and understanding cultural diversity based on a case study held in Vietnam. The Vietnam project was facilitated by Kelly Ottman for Brady Corp's Asia Pacific Leadership Team.

Wisconsin Women's Affinity Alliance, Milwaukee, WI, January 2013

- Featured speaker for the Women's Affinity Alliance. Program entitled Positioning your Women's Alliance to Influence Leadership focused on the integration of Servant Leadership, women and corporate values. Provided featured presentation and moderated panel

Organizational Development Community of Professionals, Kohler, WI – June 24, 2012

- Presented a half day workshop on Global Servant Leadership to 40 Organizational Development Professionals from SE Wisconsin at the Kohler Learning Center in Kohler, WI. Co-Presented with Aland Klotsche, Senior VP of HR from Brady Corp.

### Supporting Attachments – See Appendix B

- Library Project Servant Leadership Award overview with testimonies from graduate students. Source Linked In Article.
- Recommendation by Mark Hale. MSOE Alumni, Library Project Partner, Co-Founder of Demand Force, Founder of Face Pay, and owner of Bit Coin Jet. Source Linked In Recommendation.
- Recommendation by Jeong Woo. MSOE Associate Professor and Doing Business with China participant. Source Linked In Recommendation.
- Recommendation by Nasif Rodgers. MSOE Educational Leadership Graduate student. Source Linked In Recommendation.
- Recommendation by Al Klotche. Past President Brady Corp Asia. Past President Mayline. Source Linked In Recommendation.
- Sample Student work centered on Servant Leadership from 2016
  - REAL paper
  - Journal
  - Reflection
  - Thesis paper

## Looking Ahead

As detailed throughout the report, the following is a summary of the goals we have for the 2017-2018 academic year:

Goals as they relate to Outcomes 3 & 4 for the 2017-2018 academic year include the following:

1. Successfully administer and analyze the data from the 2018 Multi-Institutional Study of Leadership,
2. Work with the newly appointed Assistant VP of Institutional Effectiveness, Dr. Jill Meyer, to develop an assessment plan to more effectively measure the impact of Servant-Leadership at MSOE, and
3. Continue to collect and analyze existing assessment data from alumni surveys, senior exit surveys, NSSE, and SSI to measure the impact of Servant-Leadership at MSOE.

Goals as they relate to Outcome 5 for the 2017-2018 academic year include the following:

1. Secure funding to enable the Chair of Servant-Leadership at MSOE to transition to a full-time position for as long as needed,
2. Develop a strategic plan for Servant-Leadership at MSOE based on the University's strategic plan that is published in early 2018, and
3. Secure funding and institutional support to create a physical location for Servant-Leadership at MSOE that is visible to the public and easily accessible to all students, faculty and staff.

Goals as they relate to Outcome 6 for the 2017-2018 academic year include the following:

4. Further analyze the faculty survey to develop a better understanding of how faculty interpret integration of servant leadership into their courses,
5. Further analyze the faculty survey to develop a better understanding of how we can increase the quality (training) and quantity (resources) of academic servant leadership integration, and
6. Modify the survey to provide us with additional measures next year.

We look forward to yet another year of significant growth at Milwaukee School of Engineering!

## Appendix A: Sample Student Reflection Paper

Written by an MSOE student on 11-10-16  
Servant Leadership Reflection – Honors Seminar

I can honestly admit, throughout this whole semester if I were asked the question, “what class have you learned the most in?”, I would without a doubt reply with this class. The subjects in this class can be discussed, but to truly grasp it, the experience portion is a necessity. So far, working on my Leadership project has made me much more aware of my role as a leader—leaders, I have come to realize, are not just one person. These people are teammates, who combine their abilities to achieve the same goal—in this case, it is to provide a better environment for the community.

One of the more difficult aspects of the project was surprisingly—for me—listening. Since our group for the futsal field was split between the two seminar classes, each class would form their own vision. My class had only three people, and the other seminar had the majority, so they always thought they were entitled to the final vision because they simply had more people. It was extremely frustrating because communication was hard since we could never find a time to meet up with the other class; all of our schedules were so conflicting. The attitude the “leader” from the other seminar really grated on me, because he believed that his ideals were going to become the final product. We shared a Google document with the other seminar, and our lab time would be spent reviewing what little they did, and correcting parameters they botched. I went to badminton, and the “leader” of the other group was there, and he basically said, “you guys just need to figure out what our group is doing”, leaving no room for input. So, I had struggles listening to others in the group because to me, it felt more like taking orders. I admit our group rejected a lot of the other group’s suggestions, but it was for the sake of being heard and acknowledged.

Communication with the other peers was the only tenant that was difficult to apply. Committing to the growth of the community—that will never be difficult. How can it be hard to want to improve other’s lives? Improving a community? That is the reason I became a civil engineer—I want to help others, and I want to give everyone the opportunities they all deserve. As a civil engineer, I do not only build infrastructure—I build lives, and I want to encourage growth. Viewing this project in particular, my first thought was, “I want to spread the love of the game”. It was fairly effortless to conceptualize the final product of what our group was imagining—my excitement thinking about the effects this field can have on the surrounding community aided greatly with that. But, my vision was fairly clear throughout the semester—we wanted to maximize the usage of the space as much as possible, and give as many amenities we could without overwhelming the lot. Overall, I understood that this futsal field was not just

meant to be a field—it is meant to become a tool of the neighborhood, one that can be utilized to bond neighbors, and to hopefully create a welcoming, warm environment.

I am so glad I was able to go out to view one of our potential lots, because I remember an exchange we had with a man in the neighborhood that day. He was obviously curious as to why we were in the area, and said himself, “man, I am scared just standing here on this corner” in a playful tone. When we explained what we might potentially transform the property into, he was very enthusiastic and gave Professor Carriere his business card and volunteered to help. That exchange really opened my eyes to how the people living in these neighborhoods obviously do not wish for their houses and streets to be in these dilapidated states, and how they are entirely willing to put in efforts. The problem is that they need outside resources in order to create a difference. It is different reading about this, and actually experiencing it myself. That day, I realized that it is not just us partaking in this project—it is also the people being affected by this renovation, much like that man on the corner. We all share the same goal—to create a better life for the people who deserve it, and therefore we are all the same.

The experiences I have with this program are already immensely beneficial and unique, but I would suggest, if possible, a collaboration between our class and maybe a high school. It is amazing how we are given these opportunities, but if we collaborated with high school students from the communities we are completing the projects in, we can get advice from people who are integrated within those neighborhoods first hand; also, it would give those students the same opportunities we have. I also feel it would definitely bridge the gap between our experiences, possibly allow for some enlightening discussions, and further knit MSOE into the fabric of Milwaukee’s population.

Overall, this semester has further revealed the problems I have been aware of for quite some time, because I live only a couple of blocks away from them now. Being so immersed within the Milwaukee community has taught me, and has inspired me. I want to become a member of the surrounding neighborhoods. Next semester, I plan on volunteering with several different organizations, to explore how certain issues are handled.

## Appendix B: Supporting Evidence for Dr. Kelly Ottman

Library Project Servant Leadership Award overview with testimonies from graduate students. Source Linked In Article.

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# MSOE Doing Business with China Recognized by Library Project for Servant Leadership

While in Hunan, China, the MSOE Doing Business with China program and Dr. Kelly Ottman were recognized by The Library Project, a non-profit organization that donates books and libraries to under financed schools in China and Vietnam (<http://www.library-project.org>), for providing Servant Leadership in China. Since 2010, the MSOE Doing Business with China program has partnered with the Library Project. The partnership has evolved over the years to MSOE independently sponsoring a library in 2015 - 2017.

Sandwiched between experiencing the political capital of Beijing and the financial capital of Shanghai, The Library Project offers the MSOE graduate students a rare opportunity to work in rural China, as opposed to just traditional travel to China's mega cities. The Servant Leadership aspect of the MSOE Doing Business with China program continues to be a signature of the program and distinguishes MSOE from other graduate immersions. Through the Project, students gain a more complete picture of China. Specifically, they can observe and experience ramifications of the massive transformation from an agrarian to a modern, industrial and technology based economy which reverberates through China's domestic, cultural, and political systems. They also gain an appreciation of the global business implications of this transformation.

Global leadership acumen is gained through this student-driven global project management experience which starts three months prior to the immersion. Students take leadership roles to determine the needs of the school, develop a marketing plan to secure donations of money and supplies, manage a budget, coordinate logistics and plan activities. Appreciation for the complex culture and flexibility is integrated into planning and execution. Teleconferences at six a.m. on Monday mornings, communication through WeChat (a Chinese social media communication app), and preparing for and being comfortable with unknowns are key to the learning. Alterations of plans once on-site is a common experience that requires keeping the primary goals of serving the children in mind, while adapting to the unexpected situations encountered (including in 2015 changing location/school less than 24 hours prior to execution).

Building the library is the visible product of the project. Yet, teaching English, interacting with the children and being a global ambassador are just as impactful. MSOE students have participated in formal ceremonies, traditional lunches with government and school officials, impromptu sports games, and home visits to sponsored children. Interacting with and learning from the sponsored children who live with profound financial, medical, and family challenges helped MSOE students to grow in empathy. MSOE students cite gaining just as much, if not more than they have given, from the transformational experience.



## 2017 Library Project MSOE team and Hunan kindergarten children

Alumni, Dr. Mark Hale, has been instrumental in supporting the project and has accompanied the MSOE students on the last three projects. He has hosted celebration/reflection dinners and has coordinated excursions in the rural areas to extend the learning. These excursions included exploring national parks in Sichuan, spelunking in **Zhi jin dong caves in Guizhou** and traversing the largest and highest glass bridge in Zhangjiajie Grand Canyon in Hunan. Again the experience of eating with local street vendors and traveling through small villages and hand tilled farmer's fields provides greater depth of learning.

Challenging travel logistics extend the learning and provide the ability to see progressive development in Western China. In the past, students have taken overnight trains, while this year students took a high speed train as part of the travel logistics to and from the site.

The following are quotes from students over the last seven years. Follow-up surveys of the students also note the impact of the Library Project to leadership transformation.

Quote from Stacey class of 2016: *"The servant leadership piece of the trip was the most rewarding, personally. I had never been involved in this type of work so I didn't know what to expect. ... On a personal level, I knew this is where the biggest growth opportunity would be for me. It's an amazing feeling – one that I cannot articulate well – being in the elements and seeing firsthand what the power of money, time, and simply love can do. ... The idea behind the project was to provide a library and resources to the school – our time, energy, and monetary help to change the teachings and lives of the children who attend the school. Never did I imagine that I would have left with a greater gift. ..."*

Quote from Don class of 2015: *"In all, this day was considered to be one of the best experiences by the group. The passion and energy of the kids was contagious. We were given a firsthand view of the innocence of a child who could live in the poor parts of China and still go to school with such enthusiasm. The day also provided the team a chance to come closer together which carried on throughout the rest of the trip. Most importantly, we had the opportunity to experience the daily living conditions of the Chinese, which most westerners do not have the ability to see."*



Quote from Drew class of 2015: *“This servant leadership experience provided me with several major points of learning. First, I realized the importance of an immersion experience as opposed to sightseeing. By really getting involved with a project like this, you are getting firsthand experience into unique cultures with their unique challenges. Through pairing tourism attractions, business presentations, and first-hand servant leadership applications, we truly were able to experience a comprehensive, understanding of this once-unknown culture...”*



Quote from Joe class of 2015” *“In the context of Doing Business with China, I see the importance of a servant leadership project. It is like Al Klotche said during his presentation during the domestic course, “What skin do you have in the game?” When you are doing business with China, it is about more than your company’s success. It is about equitable treatment of employees. It is about making sure the people you work with are treating their employees the way they should be treated and paying them a living wage. These concepts were demonstrated by being immersed in the everyday lives of those we met through the project.*

Quote from Chad class of 2014: *“ My perspective of this opportunity went from something that was an obligation, to something that is necessary to build the modesty, and the values necessary to become an effective leader.”*



Quote from Patrick class of 2013: *“This project not only met my expectations, it far exceeded them. To say this experience “changed” me is an understatement. It completely shifted the way I see the world and my place in it. It not only made me feel unbelievably grateful for the life I have, but also responsible for and capable of changing it... Though I have always had a respect for servant leadership, I never saw myself as able to live it every day. This experience, not only on the day we were there, but the entire preparation for it and enduring memories it has created, has made me realize that I can perform servant leadership in my own life every day.”*

Quote from Paul class of 2013: *“By participating in the servant leadership project as a part of this class I have learned what being a student/professional ambassador is. This project required a lot of coordination among the students in the group in order to raise money, gather gifts, learn about the area and pack and transport those items. I think this project was the beginning of bringing our group of students closer together before traveling and was a good way to build relationships.”*



Quote from Shruti class of 2011: *“An organization is defined by a group of people who work together to solve problems for other people. I realized that leadership is not about giving directions to your team members, rather working with them to derive ideas on*

*how we can collectively serve the needs of the greater good. As the MSOE team, we brainstormed on ideas to fundraise, to gift, and to engage students, which were successfully implemented..."*

*Quote from Caleb class of 2010: "I think that our opportunity to do a servant leadership project internationally is a great way to assist those in need as well as change our own perspective of the world. For many of us, poverty itself is very foreign, and when coupled with an international experience, assisting those in poverty can be a life changing experience. Changing our views on the way in which we live allows us to be more conscious of the amazing gifts we are given on a daily basis in the U.S. I think it allows us to complain less, and live a more fulfilling and enjoyable life – serving others and changing our hearts in the process."*



2010 Partnered with Brady Corp. outside of Xian

## Recommendation from Mark Hale

MSOE Alumni, Library Project Partner, Co-Founder of Demand Force, Founder of Face Pay, and owner of Bit Coin Jet - Linked In Recommendation

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Mark Hale

Entrepreneur

October 10, 2017

Kelly is often praised for her servant leadership program. Each year she connects aspiring business students with the young, resourceful students at rural schools in China through the voluntary library project. I've had the good fortune to participate as an alumnus with this group for five years.

The foundation of the program is to teach the human element of leadership, servitude. I've been in all too many business programs and executive training that teach organizations and business models. Yet, clearly the heart of leadership is the ability to connect at a personal level which can't be taught; it has to be experienced. And wow does she give an experience. Kelly's students are first introduced to Chinese company workings and styles which is not easy since it is culturally rich. And then a miracle happens as they engage with the young school children at rural schools to instill libraries for them and visit their homes. Her students soon realize that being a leader goes beyond themselves and their team and is about the community. Without exception, her students provide the feedback that their lives are changed. And we hear from her students how they have brought this back to their own organizations.

This leadership program itself is impressive and I would challenge any business school to elevate to meet this standard.

However, what I have to say most is that there is something truly special about Kelly. There is a selflessness that she has that connects these two worlds. I live my life to think I could do that. We all do. Kelly does it effortlessly. Her students find that being a person, a leader, is more than themselves. When they meet the children at the schools for the library project, they learn quickly it is not what you have that defines your happiness. It is your own hope and dreams. And quickly bonds form that last lifetimes. It is an ethereal experience to be involved with. Certainly we can say hundreds of business school students went on to graduate and are back at their companies doing the same. Thousands of children in China whose lives are impacted for the better (the library

project does follow up with the schools). Kelly is the only person i know that makes this kind of profound impact on the world.

How often is it that we say we've done something different? Not many people take a makeshift bus down a dirt road into the middle of China. How often is it that we look back and remember a person that we met as a child? Her students will be remembered by the children at these schools for their own lifetimes. How often is it that we work so hard and look back and say we would do it again? Her students do.

I know Kelly will continue this program. She has to.

Mark

## Recommendation from Jeong Woo

MSOE Professor and Doing Business with China participant - Linked In Recommendation

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Jeong Woo

Professor

October 10, 2017

It has been my pleasure to work with Kelly at Milwaukee School of Engineering. She is an outstanding leader, professor, and administrator of the highest caliber who has a proven record of educational contributions to the fields of leadership, organizational development, and strategic planning. Kelly and I have been worked together on several occasions where Kelly assumed the leadership role. It was so impressive to see her ability to unite the team members' different self-interests into a common goal.

I had a chance to join her "Doing Business with China" program in 2017 as an observer. Her leadership during the entire program was exceptional. The most impressive area was her planning skills to coordinate many activities for the entire program. She knows how to delegate tasks to team members to empower them so she can focus on other important tasks.

I congratulate Kelly for her success in developing and running the "Doing Business with China" program for the last eight years. It was one of the great learning experiences for me because of the value of the activities she integrated into the program. She has formed many MSOE and external relationships through her sustained commitment to this program. Further, she has integrated a servant leadership program by incorporating a community program in a rural area of China. This program is an exceptional achievement since it creates a transformational experience for so many students, involves challenging travel logistics to deepen the experience, and has required coordination with over twenty local businesses.

I must also emphasize that the presence of Kelly at MSOE is of great interest since her leadership have been pivotal to the development of new opportunities that have a tremendous impact. She is currently serving on the strategic planning committee and is working as the co-chair, with the President of University, on the mission and values committee.

Her department colleagues speak highly of her professional activities, and she is an inspiring educator who is greatly appreciated by her students.

## Recommendation from Nasif Rodgers

MSOE Educational Leadership Graduate student - Linked In Recommendation

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Nasif Rodgers  
Graduate Student  
September 22, 2017

I am so pleased to offer the warmest and sincerest of recommendations on behalf of Dr. Ottman. I became a student of Dr. Ottman's in the MSOE Educational Leadership program, where she proved to be an outstanding professor, and later on, an outstanding leadership coach.

As a professor, Dr. Ottman easily found a way to build an authentic, empathetic relationship with each of us--we always felt comfortable to be candid about the difficulties we faced as both educational leaders and inaugural students in a leadership program that was charting new waters by merging the business and education worlds. Personally, I found Dr. Ottman's approach to teaching and learning to be dynamic and multifaceted. To do the work of being a reflective practitioner and learning more about who I was as a person and how that impacted my leadership on others, it required someone who was an exceptional listener and keenly aware of things in front of me that I did not necessarily see. Dr. Ottman was that person, and because of her I was able to take back strategies to my own leadership teams that allowed us to grow and become more self-aware.

As a coach, Dr. Ottman was equally as impressive. First and foremost, she was incredibly present in our time together, and never used cliches or platitudes--the kind you would commonly hear from most who claim to be leadership coaches. Instead, Dr. Ottman asked piercing questions, analyzed my responses, guided me through deep inquiry processes, and helped me to feel more confident in my abilities to both lead and follow. Ultimately, she helped me to arrive at a place where I no longer needed to focus on aspiring to acquire a specific position; my thinking and understanding was now more evolved, thus allowing me to pursue not a position, but my passion and my purpose. And for that, I am eternally thankful for her personal impact on my career as a servant leader and change agent.

Simply put, Dr. Ottman is nothing less than amazing. Her unassuming demeanor, unflappable presence, and authentic desire to truly serve those who want to grow and learn has definitely served me well, and will surely serve your team and organization well.

Thank you for taking the time in allowing me to share my honest insight and firm belief in Dr. Kelly Ottman.

Nasif K. Rogers, M.B.A.  
Associate Principal, Glen Hills Middle School

## Recommendation by Al Klotche

Past President Brady Corp Asia, Past President Mayline - Linked In Recommendation

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Al Klotche

Member Board of Directors at Plymouth Tube Company

December 9, 2013

I have had the pleasure of working with Kelly across a number of projects. Shortly after moving into the President of Brady Asia Pacific role, I found myself with a new team consisting of managers from 8 different nationalities/cultures. My first engagement with Kelly was focused on helping my leadership team come together and focus on a significant growth opportunity that lay ahead of us. During our first session, Kelly helped raise our self and team awareness through traditional tools such as MBTI. Our work with Kelly helped us better understand work styles and tendencies, and my team really enjoyed the learning journey. Our ability to better understand each other and learn how to modify behaviors for the benefit of the team began paying off immediately. My team was so engaged that we brought Kelly back to Asia multiple times to help us continue our growth and development. What we all liked the best was Kelly's non-traditional approach. Rather than sit in a conference room for a week, all of our learning was experiential – our venues ranged from the heights of Mt. Haleakala in Hawaii to orphanages in Vietnam. Our results as a team were so powerful that Kelly and I were asked to present our approach and results at a number of international leadership conferences. Kelly and I also did some work together on exploring and unpacking servant leadership. Much of this was Kelly serving as a coach for me to fine tune my own leadership skills. Despite a change in roles and companies, I still continue to work with Kelly and would highly recommend her for others looking to develop their own leadership styles and team effectiveness.

## Sample Student work centered on Servant Leadership from 2016

### REAL PAPER EXAMPLE – ERIC WALL – ENGINEER AT OSHKOSH CORP. MSEM PROGRAM

#### QUESTION 1: ESSAY

1.

- What significant [central, useful, meaningful, surprising, disturbing] concepts/ideas have I learned/gained?
  - Demonstrate knowledge, understanding, and analysis
    - Identify facts and subcomponents

Given Through this week's assigned reading and guest speaker, there were many useful and meaningful things that I learned. Reading Chapter 4 of the Servant Leadership book, I was able to take away 7 practices that a servant leader must exercise. These 7 were self awareness, listening, changing the pyramid, developing your colleagues, coaching not controlling, unleashing the energy and intelligence of others, and foresite. These are the key principles of servant leadership and can be applied to academics, private businesses, public businesses, and non-profit organizations to name a few. To give a few examples, a servant leader must first listen to their colleagues before they can truly serve them. No one can be a servant leader if they don't know what is wanted by their customers. Changing the pyramid focuses on helping your colleagues and individuals below you instead of trying to please your boss. This way, the people at the bottom of the pyramid who have the closest interaction to the customers of the organization are empowered to make decisions and serve the customers. Through the guest speaker, I learned a lot about perspective through his examples. The one that stuck with me the most was the article relating to how China (Foxconn?) had been utilizing underage workers. This seemed very unethical until it was contrasted with those same underage kids working the streets. No perspective is right or wrong and each one of us has our own that is shaped from our experiences.



Correct Answer: [None]

Response Feedback:

Mashups

Path: p  
Words:0

1 out of 1 points

#### QUESTION 2: ESSAY

1.

How does this idea/concept relate to other course concepts?

- Demonstrate synthesis and/or evaluation
- Provide links to other larger concepts/terms from the course to demonstrate insight and new meaning
- Show patterns

Given Answer: The ideas of perspective and servant leadership can be applied in any scenarios. As the book mentioned, no matter what type of business or organization, servant leadership can be utilized and bring success. This applies cross-culturally as well. Whether doing business in China or the U.S., servant leadership can be a universal way to gain respect and build relationships. These relationships prove to be critical in Chinese business. Along with servant leadership, understanding perspective and emotional intelligence is important in a leadership role. As a leader, you must take time to understand others perspectives and understand how they are feeling. This is important when trying to motivate a team, understand the morale of the team, as well as how to coach a team.



Correct Answer: [None]

Response Feedback:

Response Feedback: [Empty text box]



Path: p  
Words:0

0.97 out of 1 points

### QUESTION 3: ESSAY

1.

- How could you use your learning today or in the future? (Application)
  - Are there challenges to application and how can you overcome these challenges?
  - Will you seek more knowledge? How?



Given Answer: The 7 principles that I read about in the Servant Leadership book can be directly applied to my current management role. The chapter really made me take a step back and self-reflect to understand if I was truly serving my peers. Some of the challenges that I see with servant leadership is the articulation of an "anointed" peer leader. In the book it mentions that the best learning and creativity is done when employees are on an equal level and don't see the need to impress their boss. However, often times there is a leader that emerges from the group that takes charge. With formal titles and hierarchy in most businesses, I see it as a challenge to create an atmosphere with my delegates in which they feel I am a peer and not a boss. With them thinking of me as less of a boss and more of a peer, I believe they will thrive and feel empowered. To seek more knowledge I plan to read through the rest of t

he servant leadership book. The chapter really intrigued me and left me wondering how I can become a better leader to my team at work.

Correct Answer: [None]

Response Feedback:




Path: p  
Words:0

0.97 out of 1 points

### FEEDBACK AND NOTES FOR ATTEMPT

#### 1. Feedback to Learner




## Journal Entry: Library Project, Guizhou Province

Date: Friday, June 3

Presented By: Megan Waelti



We arrived at the Da Xi Xiang Elementary School on Friday, June 3. There was a lot of anticipation waiting for us within the community; excitement for the Americans to arrive. It had been clear since our arrival that we were seen as somewhat of celebrities, likely some of the first Americans to visit the region. Upon arrival we unloaded our bags of supplies and were met with many friendly smiles from the locals. They insisted on taking our bags and carrying them to the school. The amount of photographers was overwhelming, but we had been prepared to have school administrative officials present along with camera crews.

Walking into the school courtyard/track area we were met with all of the children. They were quickly called to order by their respective grades to line up so a special ceremony could take place. The officials all gave speeches with many thanks to the generosity of the Library Project and MSOE for making a difference in the education of the children.



Dr. Kelly Ottman then gave a speech on behalf of MSOE and our group that inspired the students to keep learning, to keep dreaming, and to keep living the lives that they wish to live. Prior to the speeches we had special red ties presented to us to wear for the day. At the conclusion of the special ceremony we were able to present our red bag gifts to the 18 teachers and several administrative officials and then the children, all 361 of them.

We then moved upstairs to their Library and Rec room to begin assembly of the Library. Books had been shipped to the school that had been approved by the Chinese government as fit for the children to learn from. MSOE split into two groups, essentially men and women, to both assemble the bookshelves and to sort, label, and arrange the books. Then posters were hung and finishing touches of gifting the World Globe were completed. Alice, our wonderful



Alice, our wonderful coordinator, was a tremendous support and inspiration throughout the entire project. She is one-of-a-kind and inspired us all in so many ways. The completion of the construction of the Library Project was a very proud moment, especially seeing the impact that it had not only for the children, but their families, their teachers, and the community.

The afternoon included traditional lunch with the children and teachers. MSOE had split up into small groups to participate in activities with all of the students by grade level. We had activities that included coloring, basic number and words teachings, sporting events, and more.



The local men had challenged our men to a basketball game, so everyone from the school surrounded the



court to watch and cheer on the teams. We continued to interact with the children and community members for the remainder of the game, sharing endless pictures, autographs, and laughs.



At the end of our visit we took time back in the Library room to present gifts and sponsorship to the three children. They were selected by the school as high academic children who might not be able to continue their educations due to financial and family hardships. They shared with us their stories, their favorite subjects in school, and their dreams of who they want to be when they grow up. One of the children explained that he was happiest when he was learning math and science. It was an unbelievably touching moment and one that all of our group will cherish and hold close to our hearts.

As we said our goodbyes to everyone at the school our group couldn't have walked away more humbled. It was an experience of a lifetime, and many of us soon would call it without a shadow of a doubt the favorite experience of the trip. Not only did it truly teach us what Servant Leadership is all about, but it allowed each of us to reflect on a deeper level on what "real China" is like. It gave us a moment to pause and see outside of the business world and see what it the rest of the country is like and who the people are. Reflecting on day, we learned how to serve others but at the same time to accept that they are in return also serving us in the people that we are learning to be. The Library Project served as the ultimate Servant Leadership experience for us. It was highly beneficial in understanding the good that comes from it and how powerful it can be to bring people together.

**Servant Leadership Reflection**  
**Mandy Runnalls**  
**Raider School of Business**  
**Milwaukee School of Engineering**  
**July, 25 2016**

**Prior**

I remember when I first started working at MSOE and stopping on my tour to talk about the Servant Leadership office. My quick elevator speech consisted of me telling families that the concept of Servant Leadership was so much more than just your typical volunteer office. Instead, what the Servant Leadership theory offered was a chance for students, and leaders, to have the chance to foster the want to serve others first and foremost and to see a community grow while helping others become their very best. Never did I expect that I would get the chance to participate in an MSOE Servant Leadership project, let alone an international project. Truly, coming into the Library Project, I was excited for the opportunity to participate in a larger role but I did have troubles connecting what it would have to do with the overall study abroad program—it's not the most obvious of connections.

**Post**

Although it may have not been clear to start with, by the time we were rolling out of Guizhou, it was not hard for many of us to say that the Library Project was one of the most important parts of the entire program. There truly is no better way to understand a culture than by jumping in and helping serve. Completing a Servant Leadership project in a foreign country forces you to understand another culture very intimately and in a way that many will never experience. It is the rawness in serving another human and seeing the absolute happiness in the smallest things that enables people to continue being a servant leader to many different communities.

**Summary of Learning and Action Steps**

While in preparation for our journey to China, I had the opportunity to work with Alice, the Library Project Coordinator. Very soft spoken and eager to please, Alice is the embodiment of a Servant Leader. Seeing her absolute passion for what she does and the schools she works with, it is easy to see that she intentionally performs her actions with the students in mind and always with the end goal to see the students thrive and have opportunities that they might not have had otherwise. It was one of the sponsored students that said he was so excited to have

the opportunity to learn because he loved math. This statement, while so simple, helped many of us realize that we take what we have for granted so often and that the opportunity to learn and the freedom to pursue what we wish is an absolute privilege.

One other point of note that helped me to better understand the value of Servant Leadership was experiencing it as a team. By completing this project as a group, we had a chance to come together under a common goal and work to successfully complete something that at times, could be very stressful. From packing and checking bag weights, to tying and stuffing 365 gift bags, to playing hopscotch, it was amazing to see how everyone reacted differently to situations. To see someone light up as he taught a kid how to spin a basketball on his finger; to see another read stories on the steps even though there was an evident language barrier; to watch a stranger hand over their child for a picture; these were all experiences that helped shed new light onto the personalities of our colleagues and gain a deeper appreciation for who they are at their core.

As a short term actions, I have found that I value and want to work for an organization that puts emphasis on giving back to the community. I want to take other servant leadership opportunities as they arise and I want to continue to be an advocate for the Doing Business with China program and the many changes that it has inspired in the way that I desire to lead. As a long term action I would love to first be involved in another international servant leadership opportunity and would eventually love to lead one. Through participation in the program, as a leader today and in the future I want to work on remaining mindful of how I am impacting those that I work with and around. Remembering to consciously put the needs of those that I work around first and having the inspiration to see them grow as people is something that I will strive to actively keep as first and foremost in my mind.

## **KiSS**

Keep—

Mark Hale—he is fundamental to the project and has so much passion for doing it. He is another Alice and is a fantastic example as to someone who utilizes servant leadership projects to keep his team cohesive.

Designated Roles—this gave myself, and Megan, the opportunity to take on a larger part in the project and take the chance to work on an international project more in-depth. We also got to know some amazing people in a very different way than other colleagues.

Keep the MBTI class period, it helped us to better understand each other and our roles within the group, but also evaluating China was a great exercise.

Start—

Marketing the program earlier and solidifying who your group traveling to China is. It is better to have a large group and be selective about who you will be traveling with.

Fundraising earlier—can set up a better plan and hopefully gain more money!

Group bonding a bit earlier. Activities like what we did the first evening (center was closest to home and moving around the classroom as a compass) was great to get to know each other at first and break the ice but it would be great to continue that a bit more throughout the domestic course.

Stop—

Nothing—this program is well thought out and developed. The guanxi that has been created is amazing and it is a wonderful portion of the trip to be able to bring in Mark Hale and hear his excitement and passion for what he does.

# **The Case for Servant Leadership in Contemporary Chinese Society**

**Thesis Presented By: Glenn D Banks**

**July 1, 2016**

## **ABSTRACT**

This work will consider the concept of servant leadership, a model of business leadership which argues against the authoritarian and patriarchal model of leadership in favor of a concept which stresses teamwork, open communication, power-sharing, delegation, environmental awareness, and employee advancement and fulfillment through active leader participation and concern. In Chinese society, as this work will show, there is a strong tradition of Confucian ethics which place a major premium on obedience to the wisdom of leadership, as well as considerable loyalty which comes at the expense of true collaboration. This work will show that there is not a major difference between the traditional Confucian hierarchical and patriarchal leadership model and the transformational model expressed through servant leadership, and show ways in which Confucian ethics can be used as a tool for expressing the values of servant leadership within Chinese society. Policy implications will follow, which will show that Chinese leaders must be induced to adopt the most collaborative style of leadership shown by the servant-leader model, but that Chinese employees will find these concepts to be very familiar.

## **Introduction**

This work will explore the concept of servant leadership, and extend this concept to the Chinese market and business environment. As described by Greenleaf (1970), servant leadership can be defined as an organizational metric which stresses the sharing of power, as opposed to a strict hierarchical system where power dynamics and decision making flows from the top of the organization to subordinates below. In practice, this concept need not necessarily upend the larger framework of a given business or other organization. In order to be successful, servant leaders must learn to trust the judgment and wisdom of their subordinates as well as understand that only by meeting the “highest priority needs” of those over whom their leadership is exercised, and by helping those subordinates to “grow as persons,” performance gains and “regenerative forces” leading to greater institution-wide productivity can be gained (Greenleaf, 1970, p. 1). While this concept has gained a great deal of traction in the United States, the same is not necessarily so for China, where a deeply-entrenched hierarchy dominates many aspects of life, not the least of which is business, and where deference to leadership is shown in most aspects of business life. The following work will

explore aspects of Chinese business culture which might be most amenable to the introduction of precepts of servant leadership, and explore ways in which western and eastern norms can be brought into alignment in this manner.

### Confucian and Buddhist Belief

In order to understand the potential for use that servant leadership has in China, it is necessary to explore prevailing religious and cultural beliefs within that country. One ideological and theological concept that holds a great deal of sway in that country is Buddhism, which Li and Moreira (2009) explain has had a great deal of influence on many aspects of Chinese “life, thought, literature, language, art, and science” (Li & Moreira, 2009, p. 1). Stressing the ‘four noble truths’ – that (1) life is suffering, (2) suffering is caused by want, (3) suffering can be overcome, and (4) the path to overcoming suffering requires adherence to the ‘eightfold path’, through lifelong diligence in mindfulness and concentration – Buddhism is a prevailing way of thinking in China that extends to much of their business world, particularly through hard work and loyalty (Mizuno, 1987, p. 9).

Buddhism is paired with Confucianism in Chinese culture. Under this principle, which is based upon the seminal teachings of Confucius, “harmony” is prized above all and is based on concepts of family and loyalty which override any personal interest, especially in business relationships (Li & Moreira, 2009, p. 2). These authors explain that harmony, as espoused through Confucian teachings, is the “basis of the family”, and the means by which fortune and prosperity are attained, but only through strict adherence to codes of ethics which are themselves based on strict loyalty to one’s superiors and elders (Li & Moreira, p. 2).

Confucianism is addressed in business through “diligence and obedience”, as well as a strong code of ethical behavior which focuses upon the proper and appropriate means of conversing, particularly with one’s superiors, as a means of “[preserving] harmony and face” (Li & Moreira, p. 2). As these authors explain, due to the confluence of these two distinct, yet equally notable ideologies, Chinese workers can best be described as “calm, silent, united, and obedient people” who thus maintain “strong, close-knit families” as well as strive to work together as teams – though in complete deference to hierarchical leadership – in order to solve problems (Li & Moreira, p. 2).

### Servant Leadership

There is a considerable difference to be explored between traditional leadership models and the concepts of servant leadership as will be explored in this piece. Notably, where traditional

leadership is based upon the leader being at the center of decision-making, and the idea of subordinates and employees as serving the leader – enacting policy and solving problems on their behalf, with their own interests coming second – servant leadership emphasizes the role of the leader as servant of their subordinates, as a means of attaining greater productivity and social good. As described by Zhang et al. (2012), the ideal servant leader is someone who places a strong emphasis on their own “personal integrity and long-term relationships with employees,” as well as the impact of business practices “outside the organization,” and with an eye toward “serving...communities and the society at large” (Zhang et al., 2012, p. 3).

Through establishing “favorable relationships” and establishing trust with their employees, servant leaders can derive an “employee-centered culture” to make major gains in team cohesion, loyalty, teamwork, and productivity, as well as attract and maintain key talent and high-performing employees (Zhang et al., 2012, p. 3).

The root of this concept can be found in the work of Greenleaf (1970), whose work espoused the value of service in leadership, arguing in his 1970 work “The Servant as Leader” that servant leadership is ultimately a participative leadership style, through which the role of the leader is both to lead, as well as to support and encourage their subordinates to meet their fullest potential and to meet their own personal goals, as well as that of the organization as a whole. Through putting collaborative energy back into the workplace system, the supportive servant-leader can produce subordinates who feel valued and validated by the organization, as well as more likely to bring ideas ‘to the table’, because it is more likely that all ideas will be considered.

Through placing greater consideration on attaining and maintaining the trust of employees, as well as allowing them to have a greater say in decision making, Greenleaf’s concept – and the collaborative style it espouses – leads to superior organizational growth and an enhanced capacity of a given organization to adapt to change. Halverson and Tirimizi (2008) explain further that the role of the servant leader is also to create and maintain a supportive workplace for all their employees, particularly through “[valuing] all team members’ involvement, and [encouraging] respect, trust, and the utilization of individual strengths” within the team structure, and by encouraging all members of the workforce to practice the “unconditional acceptance of others” (Halverson & Tirimizi, 2008, p. 151).

Thus, the servant leader is both the driving leadership force in the organization, but also a caring and thoughtful and supportive presence who understands that their role is far broader than simply giving orders to be followed without question.

## Paternalistic and Transformational Leadership

It has been made clear that there is a major cultural disparity between Chinese cultural norms and those in Western society which have paved the way for the relative success of servant leadership. However, this does not necessarily mean that there is no path to proving the effectiveness of servant leadership in China, simply that it must be made to conform to Chinese beliefs in order to be effective. To this end, it is necessary to contrast the leadership style shown at many Chinese firms – which can be characterized as paternalistic – with the transformational leadership style expressed under servant leadership. As described by Rowley et al. (2016), the Chinese business culture can be characterized as paternalistic, based on the highly hierarchical ideology which underpins Chinese Confucianism, and argue that the leadership style, which includes a strong leader to whom all members of a workforce must defer, is one characterized by “morality, benevolence, and authoritarianism” (Rowley et al., 2016, p. 19). Through the exercise of such authority, the Chinese business leader will also be a key example for their followers, providing an example as to how to behave with respect to precepts of “personal virtue, self-discipline,” and a sense of “unselfishness” (Rowley et al., p. 20). Through this research, it is revealed that paternalism is not only the exertion of authority, though that authority is “absolute” and must be obeyed without question, but instead extends to “benevolence” expressed in terms of “individualized concern for personal or familial well-being” of employees beyond simple work relationships (Rowley et al., p. 20).

Through this consideration, the deep importance in Chinese culture for the concept of the family can be understood as paramount: The paternalistic leader expects unwavering respect and loyalty, and provides their wisdom and unwavering hand of leadership in exchange, as well as providing care and concern for their employees – and their employees’ families – as if those employees were members of their own family. In this way, the close relationship between loyal Confucianism and strict hierarchical business structures in China can be better understood: It is not so much that employees are limited in their ability to express themselves, or to voice opinions (though this is, generally, the case), as much as they trust their leaders in the same way as they would trust valued elders in their own family. This extension of cultural norms to the business sphere typifies leader-subordinate relationships in Chinese society, though such leadership is often expressed through authoritarian action.

By contrast, servant leadership can be best understood through a broader umbrella of transformative leadership. This concept is described by Vinkenbergh (2011) as having its roots within Maslow’s hierarchy of needs. Abraham Maslow’s Hierarchy of Human Needs explains that all human beings are subject to the same need for self-advancement, and tend to follow similar paths of development. In order to achieve growth or success, these same general needs must be satisfied. Maslow explains that there are four types of need which must be satisfied for

a person to be freed to act 'unselfishly', that is, free from want or worry. These begin with physiological concerns or the needs of the body. Once these basic needs are satisfied, the person is freed to focus on their need for safety, then the desire for love, then the quest for esteem. These various concepts can be described terms of a 'softening' of motivation: At the lower levels, people are driven to satisfy their physiological needs, through biological stores of motivation honed by evolution, but the concept of transformational leadership argues that mere financial motivation or authoritarian leadership is generally insufficient to meet the needs of employees. Long-term motivation, then, requires leaders to recognize and satisfy employees' needs with regard to self-actualization, then use this in order to motivate them to achieve their full potential. Employees who are afraid or otherwise motivated (even by praise) are not necessarily attempting to do anything more than reach goals that involve pleasing leadership, and going no further (Maslow, 1987). It is the role of the transformational leader to discover the potential of each employee and find -- through empathetic conversation -- how to best help the employee toward that goal through service to the organization (Vinkenbergh, 2011). The concept of leader-as-servant can be easily categorized within this matrix.

Through this broader consideration of the larger concepts at work, major comparisons can be drawn which serve to unite the principles of Confucian paternalism with transformative servant leadership. In both cases, there is a focus on the well-being of employees, but where transformative leadership (particularly under a servant-leadership model) emphasizes the individual advancement of employees, the paternalistic model stresses the benevolence of leadership as a factor which results in the well-being of employees, independent of any specific consideration. Furthermore, where the transformative servant-leader model stresses teamwork through a shared vision and collaboration, paternalism stresses the same collaboration, yet under the watchful eye of a wise leader for whom the whole team shares a great deal of respect. In short, both of these ideologies are productivity tools, for which there is far more common ground than there are meaningful disparities. It is to this end that the following section will outline means by which these different concepts of transformational leadership -- particularly the leader-servant model -- might be extended into the Chinese business culture.

### Confucian Ethics and Servant Leadership

In order to understand the ways in which servant leadership can be made relevant and useful under the Chinese paternalistic model of business relations, it is necessary to explore different aspects of Confucian teachings. As described by Zhang et al. (2012), the strongest areas of commonality can be found in Confucian ethics, particularly the concept of ren, which can best be defined as 'humaneness' (Zhang et al, 2012, p. 7). Ren can be easily extended to concepts of servant leadership, particularly through the idea of servant leadership putting the needs and

wants of others (or the organization as a whole) over the wants and needs of the self, in order to achieve a greater end. This concept is illustrated by such core Confucian ethical tenets as “helping others to take a stand” – thereby helping the leader, and the organization as a whole, to do the same – as well as “getting others to a goal”, which, implicitly, the leader also wishes to attain (Zhang et al, p. 7). These two examples illustrate the idea of servant leadership as expressed through a collaborative approach to work, through which individuals within the organization fundamentally serve others before themselves in order to reach a common goal. Though this concept is not extended to the leader themselves, ren provides a strong precedent for a means by which Confucian ethics can be made to serve the needs of servant leadership.

Another concept within Confucian ethics which could be of assistance in making this ‘leap’ from authoritarian and paternalistic leadership styles to servant leadership is yi, which is defined as ‘appropriateness’. This concept is described by Zhang et al. (2012) as having a “strong collective orientation”, and as the basis for action which often manifests as “sacrifice for the benefit of others and community”, as well as “self-restraint in the pursuit of one’s own interests” (Zhang et al., 2012, p. 8). This altruistic approach to work is an outgrowth of the paternalistic style, through which all members of the Chinese business organization sacrifice their own needs in order to meet the needs of the wise leader, but this concept can be extended to the purview of the leader themselves: Leaders who emphasize self-sacrifice in their subordinates may also come to express this ideal themselves, and thus would be brought into alignment with the concepts of servant leadership. One final concept of Confucian ethics which proves promising in this context is that of junzi, or “listening to the demands of the people”, a concept which is already a priority for the paternalistic Confucian business leader, but only insofar as those demands can be met in order to satisfy larger organizational purposes (Zhang et al., 2012, p. 8). If this concept can be extended to further meet employees’ transformational needs – such as Maslow’s self-actualization – it can be a model within Chinese culture which is perfectly amenable to any meaningful servant leadership reform.

## Policy Implications and Discussion

It is with an eye toward these ethical considerations that this work shows that servant leadership is not too different from the current patriarchal and authoritarian model currently in widespread use in China. In order to reform this model to reap the considerable benefits that can be gleaned from servant leadership, it is necessary that business leaders – and their subordinates – adopt a slightly-modified version of their long-held cultural norms. As illustrated above, Confucian ethics (which currently prevail in this business community) can provide an effective avenue for such reform: Through a stronger emphasis on ren, or collaboration, not just within the workplace structure but as expressed by leadership toward subordinates,

servant leadership's goals of delegation and power sharing can be satisfied. Through a stronger emphasis on *yi*, or self-sacrifice, again, expressed by the leader toward their subordinates, the same goals can be reached. Finally, through leaders allowing a greater emphasis on making allowances for personal needs among their employees – thereby satisfying the Confucian concept of *junzi* – these leaders can allow their employees to meet higher standards of personal satisfaction and growth. These concepts are well-established within Confucian ethics; the only major obstacle in this cultural context is training leaders to express the same community-minded and self-sacrificial attitudes that they have long sought to instill in their subordinates. In this way, the transition from traditional paternalistic leadership styles in China is not dissimilar from a similar transition which is currently taking place in the western world.

From this consideration, there are several conclusions that can be drawn: First, the idea of servant-leadership is not necessarily a foreign one in Chinese society, and there are several notable cultural and ethical routes by which this concept can be introduced to that culture in a manner that does not conflict with Confucian ideals. However, the chief hindrance to such application is the very concept of leadership that is so central to this discussion. In essence, Chinese workers – beholden as they are to a strict hierarchy – are already familiar with the self-sacrifice and teamwork necessary to satisfy concepts of servant-leadership, as they already satisfy the servant requirement in this regard. However, there being a strong framework within Confucianism for the introduction of these concepts is a promising development, as it implies that the leaders are also aware of what they must do in order to be servant-leaders to those in their employ. To this end, the path to introducing servant-leadership into Chinese business culture is one through which those leaders are reminded of the tenets of service they obeyed so successfully before they became leaders: Through instilling a greater sense of service to these leaders, they too will be able to help their employees to become more self-actualized and less wary about voicing critical concerns about organizational processes. By abandoning the trappings of hierarchical leadership, it is the view of this work that only Chinese leaders must be induced to understand the importance of treating their employees and teams with the respect that this model implies. The employees, for whom the tenets of service are already ingrained, will hardly notice any difference aside from increased respect and interest from their leaders.

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## **Appendix C: Final Project Paper from Spring Term of University Scholars Program**

Cumulative Report: Revitalizing Atlantic City  
Team Boardwalk - Milwaukee School of Engineering

### **Problem Statement / Background / Study Area**

Since the 1930's, Atlantic City's heyday, the area has been rapidly in decline. The economy that once put all of its money into creating a tourist destination centered around casinos lost sight of many of the factors that make up a great city. Atlantic City is currently in a state of great disrepair with dilapidated buildings and depressed neighborhoods. With Stockton University set to create a new campus in Atlantic City, there needs to be an effort made to help revitalize the city. The economy needs to be stimulated to encourage growth and a plan for the organization and restructuring of the city must be made in order to ensure that Atlantic City can be reinvigorated to have the life that it once did.

The area in question has been outlined below. It extends east to west from the new Stockton University campus location to Showboat Casino and north to south from Baltic Avenue to the Atlantic Ocean.

### **Process Followed During the Project**

This project started in March with each of the five subgroups beginning research on their respective topic. The purpose of this portion was to generate new ideas to bring into Atlantic City while having research to back up the ideas. The research phase lasted five weeks until early April when the team came together and reported to the other subgroups on the information they had found. This was done to get all team members familiar with the other groups work and begin the process of thinking in terms of the project as a whole. During the next meeting, the five alternative visions were created by piecing together ideas from every subgroup. There were five alternatives created to give a solid basis for judging each vision. Not having enough visions makes each one more diverse and therefore harder to compare; having too many makes it difficult to distinguish between each vision.

Once the five visions were laid out, the team constructed the list of criteria to be used to compare each vision. Each criterion was assigned a weight based upon its anticipated importance to the city and the five visions were then weighed on each criterion. A total score was calculated by multiplying the criterion weight by the visions score in each criterion and summing the results.

### **Alternative Visions**

The five alternative visions each had a guiding "theme" to them. This theme was used to identify which pieces would best fit into each alternative vision the best. The five themes (and a short description) are as follows:

- 1.) Environment and Research
- 2.) Arts and Entertainment
- 3.) Sports and Competition
- 4.) Tourist Focus
- 5.) Local Focus

In Environment and Research, a focus was placed on developing new technology through partnerships with Stockton University. There would be new facilities constructed to house teams researching tidal energy and developing new green energy alternatives. Within the city, solar and wind power would be expanded to reduce the city's dependence on fossil fuels. Additionally, this

vision included a car-free campus for Stockton University and a partnership with the college to create a student-public housing consortium.

The Arts and Entertainment vision focuses on beautifying the city and creating a lively atmosphere in Atlantic City. Through the addition of artwork and sculptures throughout the city and live music and street performers to the area, the atmosphere in the city would change drastically. The idea of tiny houses also appears here; it creates affordable housing that does not require much space (vital in many urban settings) and encourages people to spend time outside of their homes. Also in this vision is a community building through Stockton which incorporates a performing art center, museum for student artwork, and a community art space.

In the Sports and Competition vision, there is a heavy move towards outdoor recreation. Along the boardwalk, rental services would provide jet skis, kayaks, wind boards, and other water activities to tourists and residents. The focal point of this vision is a street racetrack which winds through different areas of the city. The track would generate revenue for the city and bring in a substantial amount of tourists, too. A portion of the beach would also be designated for beach volleyball tournaments, another attraction that would draw tourists to Atlantic City.

For the vision with a Tourist Focus, Atlantic City is turned into a resort town. Most of the old casinos are renovated into new, family-friendly waterpark hotels and, like the Arts and Entertainment vision, there would be artwork around the city to entice visitors. There is an existing food truck festival which would be expanded in this vision. Also, new retail would be geared towards tourists (souvenir shops, food stands, beach shops). Overall, the goal is to make Atlantic City enjoyable to everyone who comes to visit.

In the Local Focus vision, everything centers around the current residents of Atlantic City (and those who would move there) and improving their quality of life. Affordable housing is created with an apartment partnership with Stockton University and existing homes in run-down neighborhoods would be fixed up and put on the market. The transportation infrastructure would be renovated and a more lively Boardwalk would be created. Recreation opportunities would still be created like in the Tourist Focus vision, but the old casinos could be torn down or turned into more affordable housing.

### **Criteria, Weightings, and Decision Matrix**

Our decision making process involved developing a list of criteria to base the quality of our alternative visions on. Then weighting the criteria against each other based on perceived importance to the city. Once the list of criteria was developed, we began to rank each vision on each criteria and calculate the results in a decision matrix. The criteria were chosen and ranked based on the following information.

The top group of criteria consists of economic development and feasibility. Economic development is one of the biggest focal points our visions try to address. The economy in Atlantic City has struggled due to the collapse of its gambling industry over the past few decades. Our economic development criterion was also split into short and long term to distinguish between the city's initial growth and its long term sustainability. Feasibility was chosen as one of the most important factors because we believe our vision should be a realistic and attainable goal to implement within the city.

The next group is made up of community satisfaction, income improvement, and functionality. All of these criteria are based around the community and improving the quality of life of the people who call Atlantic City home. These criteria cover a lot of factors which would make the city a more desirable place to live in. Income improvement is a factor which affects the happiness and satisfaction of the people living in the community as well as the overall

economic stability of the city. Functionality, was a topic of debate amongst our group but it was decided the visions should also be measured on the utility they can provide to the people. The third group covers capital investment, safety, aesthetics, and accessibility. This section of criteria contains many of the factors which were considered in the general outline for all of our visions we developed earlier in the quarter. Accessibility and safety both help visualize the quality of infrastructure in the city. Aesthetics is important to note because this is the “first impression factor” which can sway people’s opinions of the city one way or another. Finally, capital cost is crucial to keep in mind and is very closely tied to the feasibility aspect of our decision as a team.

The last group of criteria is comprised of factors pertaining to visitor satisfaction, inclusion, compatibility of group components, and family friendly atmosphere. These criteria were chosen for this group because they seemed to show the least direct relevance to revitalization of the city. With that being said, things like inclusion and compatibility of components were definitely put front and center during certain phases of this project. Visitor satisfaction, with the city as a whole, and building a family friendly atmosphere were both criteria that seemed to be neglected in past eras of Atlantic city, and they have been included in our list so we may be able to cover some of the holes other planners left out previously in the city.

### **The “Best” Vision Detailed Description**

#### **Business, Residential, Employment, and Land Use**

According to a retail market analysis for downtown Atlantic City created in the last 5-6 years, there is a leakage in a number of retail areas: furniture and home furnishing stores, electronics and appliance stores, sporting goods, hobby book and music stores, and gasoline stations [1]. A “leakage” is considered when the demand of the product/service is greater than the supply provided by the community. Some examples given in this study explain how the residents or even the tourists of Atlantic City may need a gas station for their vehicles as shown by the demand, but Atlantic City does not conveniently offer this product/service. Therefore, the residents and tourists buy their gasoline outside of Atlantic City, resulting in leakage of potential business.

There could be economic improvement if these areas of leakage were targeted by the introduction of new product lines in existing businesses and development or attraction of new businesses [1]. This is demonstrated in the economic redevelopment of West Philadelphia as the University and community had a large focus on retail to successfully stimulate its economy from a time of financial drought, very similar to Atlantic City [2]. It is possible some of the products and services are normally offered by other types of businesses in Atlantic City. A grocery store might offer a small selection of books or a pharmacy might sell some sporting goods. Again, this area could be improved by introducing new product lines or new businesses.

While most people are able to navigate the city without a problem, many others need a little help. By law, people with disabilities are ensured equal opportunities in public accommodations, employment, transportation, and more. However in our vision, Atlantic City should be more than accessible. It should be simple for people with disabilities to enjoy the city. On the beach, on the boardwalk, in shops, restaurants, and beyond, every person should find Atlantic City fun and easy to enjoy. We hope to accomplish this by using ramps instead of stairs all throughout the city, as well as creating a walkway on the beach which is wheelchair accessible. To supplement this accessible walkway, we will have beach wheelchairs available for use. These allow disabled people to stroll the beach, as well as wade into the water [5].

Additionally, audible walk indicators (crosswalks that announce when it is safe to cross) cater to the blind community and allow them easier navigation [4]. Atlantic City should be as accessible as possible and these changes will make a big difference.

There is an ongoing cycle of residents and tourists not feeling safe to walk around and shop which leads to empty streets and more crime. To break this cycle and help increase the business focus on retail, the safety in terms of crime needs to be addressed with a goal decrease crime in order to get people on the streets [1]. Improved and efficient lighting around foot traffic areas dissuades crime and creates a safer space. Increasing police presence and providing better training and equipment would create a more effective police force and safer city. There would be a focus on bias and race training, more in depth awareness and studying of mental health crisis, and perceived threat training [3]. It is essential to promote the police force in this area to create trust between the community, tourists, and the officers.

To further improve the quality of living in Atlantic City, the vision entails the introduction of a job skills training available to Atlantic City residents through Stockton University. Nationwide, there is currently a lack of employers providing training to employees. Additionally, there are numerous lackluster training programs already in existence [7]. In the current situation, job seekers find themselves needing to improve in areas of soft skills, such as communication [8]. In order to make job seekers more prepared for future careers, the vision involves Stockton Offering low cost job skills training to the public of Atlantic City. The desired improvement in the Atlantic City police force training (as stated prior) could be incorporated with the skills training available through Stockton University [3]. The goal of this program would be to give residents the key skills necessary to begin competing in the job market.

In an effort to raise the standard of living for residents, this vision sets out to offer an increased availability of low-cost housing to Atlantic City residents. One such solution is through an apartment partnership between Stockton University and Atlantic City. This solution would entail the construction of an apartment complex built and run by Stockton University. The main focus of this building would be offered as living accommodations for the Stockton students. However, in addition to its availability to students, this apartment complex would be open to the public. Citizens of Atlantic City would be given access to rent the rooms. The basis is simple. Instead of students moving out of campus to city apartments, city residents move to a university operated apartment building. This solution provides residents with further options for affordable living. Also, offering the apartment building to city inhabitants offers an increased source of revenue to Stockton University.

In order to maintain a local focus, the development of the city must keep the current residents of the city in mind. In order to avoid displacement and allow for population expansion in Atlantic City, a new form of housing is in demand for homeless and low-income residents. A unique solution to this problem is the implementation of tiny houses. Any dwelling below 500 square feet is generally considered to be a tiny house [6]. Although tiny houses are not a new phenomenon, they are generally used as an alternative to trailers and vacation homes. In Atlantic City, the multifaceted advantages of tiny houses will augment the community-centered urban revival vision. To start, the small size and close proximity of tiny houses amplifies the sense of community as well as safety due to the increased interaction. Because these dwellings are minimalistic, they do not have as many luxuries as larger houses and will result in more people being active in the city as opposed to being secluded in their house. This reduction in luxuries contributes to the reduction in cost of the housing. Although tiny houses are not as dense as high-rise apartments, they provide some individuals with an alternative that gives them a greater

sense of ownership making them feel like they are a part of their own community; something important to help revitalize Atlantic City.

### **Stockton University**

The final decision for the idea to be implemented in Atlantic City has a focus on building relationships between Stockton University and the community surrounding the campus.

Connecting the university to high schools in the area is intended to promote academic growth in the community, as well as increase graduation rates. The current graduation rates in the Atlantic City School District is 69%, while the New Jersey state average is 94% [9]. A constructive relationship between Stockton University and the surrounding schools could prove beneficial to the university itself by potentially bringing in more students from the surrounding area due to the university's presence within the schools. In addition to this, the soft skills programs that would emphasize effective communication, relationship building, creativity, and teamwork are to be hosted either on Stockton's campus or at local high schools. Within the Atlantic City school district, the neighborhood scout website declares 89.2% of the district is economically disadvantaged compared to the state percentage of 37.8%. Along with this, the free lunch eligible percentage in this district is 85.1% compared to the state at 32.3% [10]. This information proves the economy is not extremely successful because parents cannot pay for their children's school lunches. By adding more involvement between Stockton and local schools the goal is to increase education levels of future Atlantic City residents which will increase the average local income levels and improve the economy.

A community space art space should be built to include a theater and museum to celebrate the current community and university artists and reflect on the history of Atlantic City. The theater would have a stage which would be used to host plays held by Stockton University or surrounding high schools and middle schools. Other performances that may be hosted at the theater could include talent shows and campus speaker presentations. Students at Stockton University would have free access to this building, while community members would have a fee that may come in the form of a monthly/yearly membership, like how museums have memberships or an individual visit fee. In lower income and disadvantaged communities, such as those in Atlantic City, art programs allow for creative community building and may be fundamental for cultural development as well as key in promoting interactions in public spaces [11].

Another large component with respect to Stockton University in this vision is to expand the university's STEM program. The expansion of the programs in mathematics, technology, engineering, and science may bring more attention to Stockton University. In the STEM field, less than 5% of those employed are minorities. Underserved and struggling school districts typically lack access to the basic requirements for most STEM programs such as laptops and continuous internet access [12]. Through developing these facilities at Stockton, local schools could partner with the university this way, too. Development of a Marine Science or Saltwater Science program would prove beneficial to the area because of the immediate access to the ocean. Stockton University may look to develop a relationship with the Atlantic City Aquarium, where students may have access to marine life and the opportunity for internships or long-term job placement.

### **Energy and Resources**

The emphasis of the Local Focus vision involves providing more green energy for the locals to utilize. The forms of green energy to highlight in this vision are solar and wind in order to most effectively benefit the locals and rebuild Atlantic City. This vision specifically stresses

the promotion of personal use of green energy.

The advantages of employing wind power energy collection systems include the fact that they do not produce pollution, wind is a renewable source of energy, the wind turbines are space efficient, and the operational costs for wind power are relatively low. The electricity produced from wind power is only 2.5% of the total energy produced worldwide. However, electricity production generated through these means is increasing at a rate of 25% per year. Also, prices for wind power turbines have decreased 80% or more since the 1980s [13]. On the other hand, there are several disadvantages for wind power. Wind fluctuates and therefore, a form of energy storage is needed. Additionally, the manufacturing and installation of wind turbines requires a large cost for start up [13]. On the environmental level, wind turbines have the possibility to harm wildlife due to the rotation of the blades. One complaint against the implementation of wind turbines is their production of noise.

At the present, a wind farm consisting of 5 windmills is located at the ACUA wastewater treatment plant in Atlantic City, New Jersey. The energy generated from this plant is 7.5 megawatts of power which has the potential to power 2,500 homes [14]. Currently, this energy is used to power the wastewater treatment plant with any extra energy given to the main power grid. This vision proposes an expansion of the wind farm and a large portion of the energy harvested to be allocated for the use of the locals.

For promoting the personal use of wind energy, small turbines could be installed on or near local houses to provide a clean form of energy. New Jersey's Clean Energy Program offers several rebates and promotions in order to aid individuals in incorporating green energy into their daily lives [15]. Several companies are involved with this program. Expansion of this program, has the potential to significantly reduce Atlantic City's carbon footprint.

In addition to these recommendations involving the advancement of wind energy, it is also suggested that residential solar power use is also promoted. In accordance with the promotion of tiny houses, the tiny houses would include the implementation of solar shingles. It has become apparent the solar industry is about to experience exponential growth, according to Renewables Now, written in just the past year by experts with 15 or more years of experience in the solar industry [16]. In addition, Energy Sage explains that Tesla has made recent advancements, including aesthetic advancements, which make the implementation of solar shingles more feasible [17].

"Based on historical Atlantic City, NJ data, Atlantic City has an average monthly Global Horizontal Irradiance (GHI) of 4.13 kilowatt hours per square meter per day" [18]. According to dimensions from Tiny House Design, the typical surface area of a tiny house is about 15 square meters [19]. This means a single tiny house with solar shingles can produce about 62 kilowatt hours per day, and according to the US Energy Information Administration, the average US household consumes about 901 kWh per month, which is about 30 kWh per day [21]. Based on these figures, the investment of solar shingles on tiny houses would prove profitable, as they could produce double the energy needed for the household each day, saving on energy costs throughout the entire city.

If this were to be implemented successfully, Atlantic City could become famous for innovation in how a city manages energy and would promote the growth of the city as a whole. Sites of important, world-changing technological advancements attract more innovation, development, educational advancements, and economic growth. This is made clear by the example of Stanford University and its impact on Silicon Valley, where after the start of the electronics company HP in 1939, the area around Stanford University began producing advances

in research and the formation of many companies that have made Silicon Valley one of the most innovative and productive high-tech regions in the world [20].

While perhaps not as monumental of an advancement, the societal advancement of a cleaner, more energy efficient, and self-sustaining city would follow this precedent and create growth in the city as a whole.

### **Relationship to the Ocean and the Boardwalk**

The Boardwalk has always been a key part of Atlantic City. It is an important aspect and therefore should not be changed, but improved. The first addition to the Boardwalk should be fully-accessible playgrounds for the children of Atlantic City. These playgrounds would create a more family-friendly feel and increase the aesthetics around the Boardwalk [22]. For the older residents of Atlantic City (who may not enjoy a playground as much anymore), a rental kiosk will have recreational equipment to entertain them. Such equipment will include water activities such as kayaks, paddleboards, parasails, skin boards, snorkels and flippers, along with sports equipment like volleyballs, footballs and frisbees. These rentals will increase beach activity which would likely increase economic activity along the boardwalk. Outdoor recreation, specifically water recreation, is extremely beneficial to the local economy and drives creation of small businesses [23].

Currently, there are only outdoor showers and bathrooms along the beach [24]. To accommodate the increased beach activities, there should be beach bathhouses along the boardwalk. These small buildings would include bathrooms, changing areas, and indoor showers and would provide a private space to clean up before going onto the Boardwalk. These new bathhouses would be convenient not only for the community of Atlantic City, but also for tourists to Atlantic City.

Along with the improvement of the Boardwalk, Atlantic City should take steps to create a more friendly and inviting environment. One way to do this is encouraging restaurants to increase outdoor seating. One study found outdoor seating can increase revenues by thirty percent [25]. This would allow people to enjoy the city more and increase aesthetics throughout the streets on Atlantic City. Another way to create a more inviting space, would be to make the city pet-friendly because many residents own pets. The community would be able to take their pets throughout most of city, which would allow more socialization. In fact, it has been proven that people are more likely to start conversations with people who have pets [26]. Finally, music is a great way to bring communities together, meet new people, and increase general happiness [27]. Atlantic City should implement live music around the city. This would include community members showing off their talents along the boardwalk and organized concerts of different genres in the city.

### **Transportation and Mobility**

The infrastructure for large scale transportation in and out of Atlantic City is currently functioning with no major issues. The airport and train station are reasonably cheap and have connections to national routes. These types of transportation benefit tourists more than locals.

The limiting factor for use is getting from the station and airport into the city, however the train station is near the city and has a jitney route, and the airport has shuttles [28].

Small scale individual transportation, however, is largely limited to foot and car traffic at the moment as far as efficient and convenient travel goes. You *can* travel by bike as well, but the city's infrastructure is not well suited for travel by bike or car. These two issues could be cooperatively remedied by refinishing the road with the addition of bike lanes. When the roads are repaired, the lanes could be widened to accommodate the higher volume of cars as well as a

bike lane near the sidewalks where the parking lane would be.

Increasing the usability of non-car transportation has several benefits. Firstly, bikes are more efficient from an economic standpoint and give lower income residents a cheaper means of transportation throughout their city. Additionally, increased bike traffic would reduce the number of cars on the road, leading to a cleaner city in terms of pollution and noise. Bike traffic has also been shown to be a positive impact on local businesses [29]. This will hold true in Atlantic City because most stores do not have street parking in front of their businesses, so making it easier for people to get there by bike (or other alternative transportation) will help the local economy.

The use of taxi bikes, either rented from a local shop or Bublr Bikes, would decrease the number of cars and increase the number of people on the streets. These modes of transportation would work well for Atlantic City since the area is small enough that travelling by bike is relatively easy. Bublr Bikes would be more convenient in terms of parking compared to cars, as people would not have to worry about where to put the bikes while they are not using them. The city's partnership with Bublr Bikes would benefit the local economy; the more the bikes are used, the more profit there is for the city. On the other hand, a local bike shop would strengthen the economy as the local businesses would benefit from the profits. The increase of bikes could also create a couple of jobs for those staffing the shop, as well as a higher demand for bicycle repairs [30].

### **Commentary on the Best Vision**

In comparing five distinctly different visions, it is interesting to look at why Local Focus won. In looking at the scores, though some of the scores for Local Focus are significantly higher than the other visions, some are also much lower. However, overall they have less variation, indicating a more neutral vision. Throughout the course this year, there has been a focus on the power of place and that also likely played a role in the outcome of the decision matrix. This chosen vision is centered around the people who already call Atlantic City home. By garnering their support for this revitalization of *their* city, it is much more likely to be successful than if the rejuvenation was approached from an angle where they had little say or purpose in the vision.

### **Recommendations for Implementation**

In order for any vision to be successful, it must be implemented slowly. Taking the time to ensure all parties are satisfied (or mostly satisfied) with the changes will benefit the vision and Atlantic City greatly. Obviously the driver for this change is the addition of Stockton University to Atlantic City, so the components involving Stockton should be taken care of first. By setting up the precedent that Stockton is here to make a positive impact in the community, other changes should be well-received. Other small changes can be taken care at the onset, but larger more controversial ones, such as the repurposing of casinos into low-income housing, should probably be postponed until a trust has been established among residents and the city.

In general, any change in Atlantic City will take a long time. However, if care is taken in further steps for preparation and there is community feedback provided on the ideas being proposed for the revitalization of Atlantic City, because the focus is placed on them, the residents will likely be all for bringing new life to their home.

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