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Global Citizenship as a Function of Higher Education: The Demographic and Institutional Determinants in a Graduate Student Population

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GLOBAL CITIZENSHIP AS A FUNCTION OF HIGHER EDUCATION: THE DEMOGRAPHIC AND INSTITUTIONAL DETERMINATES IN A GRADUATE STUDENT POPULATION

by

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Abstract

Over the last twenty years, the explosive growth in information technologies, combined with the globalization and easy access to other cultures, has allowed people to think of themselves more as citizens of the world than of a particular nation. Although the notion of "global citizenship" is often discussed in the popular press, little scholarly attention has been devoted to its measurement. Less attention has been paid to the role higher education plays in creating global citizens. To address these problems, a survey instrument was created to measure three facets of global citizenship: environmentalism, social justice, and civic responsibility, and was administered to 217 graduate students at two California universities. Two analytic techniques were applied to the data -- factor analysis to construct indices for each of the facets as well as for the overall construct, and regression analysis to decompose the variation in global citizenship scores into both demographic and institutional components.

The results of the study suggest that significant variation exists regarding the level of global citizenship among the participants, with scores ranging from 32 to 59 on the (60 point) global citizenship scale. More importantly, this variation extended to the three facets of global citizenship, and when regression analysis was used to identify the determinants of each component, both demographic and institutional variables were found to be predictors of global citizenship. Specifically, higher levels of global citizenship were found to occur among older individuals, those fluent in more than one language, those with strong feelings regarding the sustainability of our planet's resources, and those individuals that attended undergraduate institutions with large percentages of minority students.

Taken together, the results of this study suggest that although both institutional and demographic variables were significant predictors of global citizenship, when broken down into the individual facets, institutionally manipulated variables explained more of the variation than did demographic variables. As such, institutions and researchers are encouraged to use this newly created measure of global citizenship to both measure the extent of global citizenship among students and to determine the extent to which the findings of this study are generalizable.

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Chapter I: Introduction

Background

While nationalism and cultural bias are certainly prevalent today, a new consciousness has been evolving steadily over the past twenty years whereby people have begun perceiving themselves as citizens of the globe, not just of a particular state or nation. This acknowledgement of human interdependence on a global scale has been made possible by the explosion of information technologies combined with easy access to other cultures through air travel and the globalization of business. The recognition that the threat to the environment is not affected by national borders also is galvanizing people to accept the fact that they cannot ignore the other occupants of the globe.

These factors led to the current push for higher education to assume a leadership role in creating better global citizens. By definition, global citizenship has three major facets, each with many sub-components. Environmentalism, social justice, and civic engagement are the three broad categories that constitute global citizenship (Levin, 2002; Oxfam, 2003; AACU, 2003). Institutions of higher education increasingly are becoming committed to producing global citizens.

Institutions of higher education in the United States are recognizing the need to articulate the term "global citizenship" into their mission statements. A standard computer search of the words "global citizenship" and "university or college mission" yields 1,530,000 results in 2005. Although this is a rudimentary procedure by scientific standards, it does illustrate that colleges' and universities have been articulating the term global citizenship into their statement of mission.

The mission statements of educational institutions have become the prime definition of an institution's identity and credibility. Accreditation processes demand that colleges and universities assess their contributions to their individually espoused missions. According to the Western Association of Schools and Colleges (WASC), the stated purpose of an institution is one of the first evaluation points (http://www.wascweb.org/senior/, 2003).

Currently a systematic measurement instrument to assess global citizenship does not exist. This is critical in two areas: for institutional assessment and for understanding the determinants of global citizenship in general. In an effort to understand the individual components of global citizenship as it relates to education, the global citizenship literature and each of its three major facets will be reviewed.

Defining Global Citizenship

The concept of global citizenship has many different formal definitions, depending on the source consulted. Based on the current limitations in the research literature, there is a need to further define and identify the significant components of global citizenship. The categorizations of the three major components of global citizenship are: environmentalism, social justice, and civic participation. This more succinct definition will become an aid for future selection of measurement tools for individual global citizenship student outcomes by institutions. Each facet of global citizenship will be discussed with reference to the role of higher education.

Environmentalism. The environmental facet of global citizenship includes environmental literacy defined as ecological activity and knowledge, environmental concern, pro-nature beliefs, utilitarian beliefs, and attitudes towards nature (Raudsepp,

2001). It also encompasses a dimension on sustainable planet attitudes (Reid, 2002). University students are concerned with green citizenship, or eco-socialism, referring to a human right to protect the ecosystem from the effects of contaminating pollution and environmental degradation (Raudsepp, 2001). Environmental behaviors and knowledge are considered the necessary skills of the global citizen (Oxfam, 2003; AACU, 2003)

Social Justice. The social justice facet of global citizenship includes acceptance of diversity in all its forms: social, religious, ethnic, cultural, gender, age, and sexual orientation. This humanistic facet has a two-fold impact on higher education. It is important not only with regard to teaching, but also with regard to the personal and organizational aspects of diversity of student, faculty, and staff populations. Colleges and universities must meet the needs of educating the students on multicultural issues for awareness in a diversely interconnected world, and also meet the personal needs of diverse learners at the same time (Morey, 2000).

Civic Participation. The civic participation facet of global citizenship includes political literacy, voting participation, global issue knowledge, community involvement, and knowledge of social and global business issues. The global education initiatives that are popular around the world in secondary students demonstrate the increasing interest in factors relating to global civic education (Davies & Evans, 2002; Holden, 2000; Raudsepp, 2001).

Global Citizenship and Education

At the World Conference for Education for All in 1992, the agenda of civic global education included the development of a model of global education. The components of this model are: furthering the cause of social justice; achieving environmental protection;

developing tolerance towards social, political, and religious systems which differ from one's own; accepting humanistic values and rights; and working for international peace in an interdependent world (Selby & Pike, 2000).

Additionally, community colleges around the United States have been openly discussing and generating research in the area of global citizenship. They have accepted global culture as an important component of their missions (Levin, 2002; Zeszotarski, 2001). The American Council on International Intercultural Education (ACIIE) in 1996 listed global citizenship skills that could be demonstrated, observed or measured. These included recognition of global systems and their connectedness, intercultural skills and direct experience, general knowledge of history and world events, and a specialization in another language, culture or country (Zeszotarski, 2001).

One of the largest movements in higher education towards global citizenship has been the effort of the American Association of Colleges and University's (AACU) liberal education and global citizenship initiative called The Arts of Democracy. Ten universities were chosen to participate in a three-year project to promote global citizenship. This project supported by the Fund for the Improvement of Postsecondary Education (FIPSE) has as its objectives:

- To generate new knowledge about global studies.
- To spur greater civic engagement and social responsibility.
- To cultivate intercultural competencies with the faculty as well as the students.
- To promote in faculty and students a deeper knowledge of, debate about, and practice of democracy (AACU website http://www.AACU.org).

Overview of Measuring Returns to Education

Historically, measuring the returns for a post-secondary education has been a task associated with the discipline of the economics of education. Both private and social returns to post-secondary education have been correlated in an effort to understand the importance of educating our population. These returns to education studies have been an effective policy tool used to justify the financing of higher education in the United States.

Previously, the returns to education have been defined solely in terms of economic factors (Frazis & Stewart, 1999; Reid, 2002; Saxton, 2000). These types of economic return studies have reported significant correlations between educational attainment and economic benefits to both public and private entities. These economic returns typically include all earnings-related data, i.e. wages, tax revenue, or industry profits.

In the last few years, some researchers have found a need to measure non-monetary or social benefits that are at least partly the result of higher education (Wellman, 1999; McMahon, 1998). Research has identified and begun to assess four distinct types of returns to education. Public economic, private economic, public social, and private social benefits have all been accepted as relevant returns of higher education (IHEP, 1998). The current trend is to examine how higher education facilitates the larger public good, essentially, how higher education assesses and accounts for the services it provides for society (IHEP, 1998; Wellman, 1999). In order to assess these potential returns or benefits from global citizenship education, a clear operational definition of global citizenship must be established.

Statement of the Problem

The need to measure global citizenship as an educational outcome is apparent on many levels. First, higher education in the United States is currently driven by student outcome-based accreditation standards. Second, the ideal of liberal higher education is rooted in an educated citizenry (Nussbaum, 1998). And third, the social non-monetary returns to education are becoming more valued in today's society and need to be further explored (McMahon, 1998).

There are two problems associated with the development of robust measurements of global citizenship. First, we do not yet know the determinants of global citizenship that will be needed to assemble a comprehensive measurement instrument. Second, there is a need for a measurement instrument that effectively measures key concepts related to global citizenship.

Purpose of the Study

This study provides a more comprehensive empirical picture of the role of higher education in developing global citizens. The first objective was to explore any variables that may be associated with global citizenship among a university student population. The second objective was to identify the correlates of global citizenship in the university student population, and then separate them into institutional and demographic factors.

Research Questions

The following research questions will guide the study of global citizenship:

1. What is the current state of global citizenship in a population of graduate student enrolled in two Schools of Education in Southern California?

2. Among these students, what variables are correlated with global citizenship scores and among these variables, which ones are demographic and which ones are institutional?
3. How much variation in global citizenship can be accounted for through the demographic and institutional variables used in this study?

Chapter 2: Literature Review

Overview

This literature review section consists of four sections. The first section examines the concept of global citizenship as it is represented in the historical and current view of outcomes to liberal education. In the second section, the first of the three major facets of global citizenship, environmentalism, is discussed as it relates to college student populations. The third section considers the facet of social justice. The fourth section is a review of the literature on civic responsibility.

Each of these sections attempts to identify any known determinants of the facets of global citizenship. Research literature that specifically deals with college student populations was used when available. Careful attention was paid to the many differing views on these topics.

Global Citizenship

In the United Kingdom they call it global education; other places have called it world citizenship, world-mindedness, and global-mindedness to name a few. But educating for humanity is indeed not a novel idea. In 300 B.C., the Greek Cynic philosopher Diogenes declared himself a "citizen of the world." Citizenship education has been traced back to the examined life theory of Socrates. Later Seneca stated "only liberal education will develop each person's capacity to be fully human...capable of recognizing and respecting the humanity of our fellow human beings, no matter where they are born, no matter what social class they inhabit, no matter what their gender or ethnic origin" (Nussbaum, 1998, p. 40). For a timeline of global citizenship from 300 B.C. see the Mc Gill report on Media and global citizenship.

Unfortunately, only a small amount of empirical research on the topic of global citizenship is available at this time. Most of it being generated from the U.K. and the Canadian and American community college systems. The difficulty with accessing and assessing the research is that the empirical studies on global citizenship are mostly program evaluations. Therefore, we can get a glimpse of what some post-secondary institutions have done in their global citizenship efforts but not a good overall picture. A more complete picture of the determinants could result in more informed policy implications for educational systems. Additionally, most of the research in global citizenship is qualitative and focuses on attitudes, rather than behaviors.

While all these factors make it difficult to give an overview of the research literature in global citizenship, this section will try to provide the most pertinent examples of the types of research in the literature. In an effort to illustrate the diverse viewpoints, both the theoretical and empirical literature on the topic will be reviewed. It is also important to note that a small faction of Americans had vocally opposed the ideology of global citizenship and have fought the internationalization of higher education (Magdas, 2003; Bowden, 2003).

Steiner (1992) conducted the first major study of teacher's attitudes to world studies. He surveyed over 200 U.K. teachers and reported that while they generally incorporate lessons related to the environment or cultural acceptance, they tend to ignore more complex global issues. Mayton & Lerandeau (1996) conducted a research study of 109 college and high school students in the Pacific Northwest to assess the relationships between human values and the psychological concept of world-mindedness. The results

led to the conclusion that the psychological conceptualizations of world-mindedness are essentially a values issue.

An important article on assessing the social benefits of lifelong learning was published by McMahon (1998). He estimated that the social returns to post-secondary education are vaguely understood, but important to the well being of society. He warned researchers to be careful of variables that are perfectly correlated with income when measuring social non-monetary returns to education. Additionally, he suggested controlling for demographic and genetic factors that cannot be manipulated. Specifically, McMahon predicted that the non-monetary social benefits of post secondary education might be equal to or more than the private and economic returns (i.e. greater than 25%).

Ashworth (1998) argued against measuring higher education initiatives to contribute to the social returns to education. He believed that until quantifiable methods are designed to measure social returns to higher education, expansion of higher education in the U.K. is unwarranted. This argument is based on the lack of empirical tools to measure social returns; specifically that social returns are an important component for the missions of post-secondary education, but valid measurement tools do not exist. Ashworth argues from a funding motivated perspective and states that funding for global citizenship education is unjustified without effective outcome measures.

However, global consciousness is at an all time high and rising due to media access and globalization of business. Pani (1999) reported that even in South Asia, higher education administrators are aware of, and striving for, global citizenship education. He stated that globally–oriented educational institutions are pursuing global citizenship initiatives. He described global citizenship as "a goal to develop global and multicultural

perspectives appropriate to an ethic of world citizenship, including a deep sense of social responsibility" (p.161).

Levin (2002) published an article that dealt with the interviews of 430 community college administrators at seven colleges over a five-year period. It reported that community colleges in America and Canada have changed their mission at the end of the 20th century. This research reports that community colleges are now more focused on the economic orientation of the world, have greater consciousness of global conditions, are more committed to multiculturalism, and place less emphasis on Western worldviews. These factors combined to show greater sensitivity to marginalized groups. Higher education administrations are becoming more vocal on global citizenship.

The President of the University of Miami recently addressed the topic of global citizenship and stated:

> As our nation continues its struggle against the forces of intolerance and hate, the challenges we as 21st century educators face have taken on a greater sense of urgency. Now more than ever, our mission is to create a learning environment that fosters excellence and prepares students to be global citizens. An interdependent world depends on a global citizenry--men and women who understand peoples, cultures, and values that surround them (Shalala, 2002).

Shalala's statement clearly illustrates the importance with which administrators are now viewing global citizenship.

A survey study of 13 colleges was performed by Davies and Evans, (2002), and although only 9 responded, they reported an overwhelmingly positive response to the

idea of instilling citizenship education. This research reports that difficulty of "what to do next" is still profound. All 9 institutions reported ambiguity about future plans. Five different current efforts were reported: personal and social education, small-scale community activities, school ethos on interpersonal relationships, infusing citizenship through lessons, and groups of students chosen for special projects (Davies & Evans, 2002).

As a follow up to Steiner's 1992 study, Robbins, Francis, and Elliot surveyed 187 training teachers to measure the attitudes of training teachers towards global citizenship. An attitude assessment survey including 8 items was given. They reported that there were no significant differences in teacher's attitudes towards global citizenship when controlling for gender, age, or primary versus secondary career plans. The descriptive data suggested that 76% of training teachers recognize the importance of global citizenship in school curriculum. Sixty-four percent agreed that global citizenship should have a high priority in teacher training. The majority (72%) believed that global citizenship is relevant for all disciplines. Additionally, this research showed that there are significant differences between disciplines studied in the attitudes towards global citizenship. The top three disciplines with positive attitudes towards global citizenship education are geography, design and technology, and art. The lowest three are math, physical education, and history (Robbins, Francis, & Elliot, 2002)

The Oxfam organization in the U.K. has been a leader in defining global citizenship education standards for K-12 students. The four major components of global citizenship defined by Oxfam suggested that the global citizen is aware of the wider world and has a sense of their own role as a citizen, respects and values diversity, is

willing to act to make the world a more equitable and sustainable place, and takes responsibility for their actions. (Oxfam, 2003).

In spring of 2003, a small qualitative study was undertaken to begin to categorize the research and devise a rudimentary framework for measuring global citizenship (Winn, 2003). Three graduate students were chosen -- one from America, one from Italy, and one from Africa. All three of them considered global citizenship to be the capacity to understand and face issues that cross boarders. Global issues, as described by the participants, are issues that face people around the world and affect all humans either directly or indirectly. The global issues that were identified in this research were environmental, social justice, and civic participation. From an environmental perspective, these global issues include pollution, global warming, natural resources, nuclear and industrial waste, common areas (oceans and air), and sustainable development. Global social justice problems are poverty, human rights, and acceptance of religious and cultural differences. Civic participation global issues are community involvement, political activism, and participation in free market systems.

One of the most valuable lessons from this research concerns the challenge with measuring curriculum and specialized degree programs as indicators of global citizenship. All three participants believed that these efforts are "preaching to the choir". Specifically, they stated that only students who already have an interest in these topics tend to enroll in the courses and programs with global citizenship content. For this reason, curriculum and degree program assessment will not be included in this study.

In an effort to assess the three facets of global citizenship that emerged from the qualitative study and the literature on global citizenship, a concept chart was created (Appendix A). This chart shows categories of global citizenship components based on the definition that global citizenship has three major components environmentalism, acceptance of diversity, and civic participation. It then categorizes the concepts that were stated as constructs of global citizenship in the literature. This chart allows for a narrowing of focus in the literature review and will facilitate the selection of survey items for this study.

Environmentalism Literature

In this section an overview of the environmentalism research is presented, with particular attention paid to the determinants of environmentalism. Environmentalism has been traced back to the Victorian times with a described preoccupation of public health, and the preservation of natural and cultural heritages (Newby, 1996). Howard Dean described a "pro-social humanistic perspective" that is based on two premises. First, he stated that there is no point in saving humanity unless we also save the earth. Secondly, even though humanity has demonstrated a self-destructive tendency in the past, this does not remove our personal responsibility for acting responsibly towards the planet (2001, p.502).

Several examples of environmental literacy efforts can be found in American colleges and universities. At the United Nations Earth Summit in 1992, universities from around the globe were asked to play a specific role in preparing citizens to analyze and resolve environmental issues. Many universities rose to the request and Harvard, Tufts, the University of Montana, the University of Wisconsin, Southern Illinois University, and

Michigan State University took the lead in infusing environmental literacy instruction across disciplines. The University of Wisconsin at Stevens Point is currently requiring an undergraduate environmental literary course for all its graduates (Wilke, 1995).

Some predictors of environmental literacy have been reported. For example, socio-psychological factors predict more of the variation in environmental literacy than do socio-demographic variables. However, both of these showed statistical significance (Raudsepp, 2001; Dietz, Stern, & Guagnano, 1998; Jaeger, Durrenberger, Kastenholz, & Truffer, 1993). The significant variables for ecological activity are; age, religiosity, values, self-esteem, and childhood experiences with nature. Statistically significant predictors for environmental concern are gender, education, religiosity, values and control. Pro-nature beliefs were only predicted by the participant's reported values. Utilitarian beliefs were predicted by religiosity, self esteem, and control, while measured attitudes on a local forest were predicted by reported environmental values and childhood experience with nature (Raudsepp, 2001).

Higher levels of education have been established as a significant predictor of environmental attitudes (Mortenson, 1999; Weaver, 2002). However, results are contradictory. Weaver reported a negative correlation between higher levels of education and environmental attitudes (2002), while Mortenson's (1999) research showed positive correlations between education and outdoor/nature activities, community participation, and volunteer work in social and recreational organizations (1999). Rockicka (2002) reported that high levels of ecological knowledge and having ecologically orientated friends, produces increased pro-environmental behavior (2002).

Several cross-cultural surveys on environmental attitudes were also assessed (Brechin & Kempton, 1994; Dunlap & Mertig, 1995; Kidd & Lee, 1997; Rauwald & Moore, 2002). Unfortunately, most have been met with heavy criticism, questioning both the theoretical underpinnings of being embedded in "post-materialistic values" and validity and reliability issues (Neumayer, 2002). This also leaves open questions about the relationship of environmental attitudes and behaviors. Do attitudes reflect action? In a Dutch sample, pro-environmental attitudes were correlated highly with income, but had a negative correlation with actual household consumer behavior (Gatersleben, Steg, & Vvlek, 2002). Energy use and waste production showed significant positive correlation with income, illustrating the lack of action regardless of reported attitudes.

What is missing in the current research is the identification and analysis of institutional factors that may contribute to the environmentalism component of global citizenship, either in attitudes or action. Two possible institutional variables are recycling effort on campus and campus community collaborations on environmental issues.

Social Justice Literature

The social justice component has several sub-components related to diversity. Generally when one thinks of accepting or embracing diversity, one is thinking in terms of cultural or ethnic diversity. Religion, and sexual orientation are all less discussed forms of diversity that may be equally important in the academic environment. However, for this study the data does not exist to measure these less articulated and less researched forms of diversity unless included in the survey. Because of the sensitive issue related to asking these personal questions, this study will not attempt to measure these less

articulated forms of diversity. As such, cultural and ethnic diversity acceptance and knowledge will be the foci for the social justice facet.

A debate on the perceived outcomes to diversity in higher education has recently been under scrutiny due to the litigation that has surrounded affirmative action. Most scholars and researchers agree that a racially diversified higher education system has a strong, powerful effect on student's level of cultural awareness and their development of democratic citizenship (Gurin, 1997). Astin (1993) reported that cultural awareness is based on how much their college experience has enhanced their understanding and appreciation of other cultures and races. Chenoweth (1998) stated that institutions of higher education have long been a place where stereotypes are dispelled by having diverse faculty, staff, and students on campuses.

Currently there is a rapid socio-demographic change underway in America. In 1999, 65% of U.S. children were white, as compared to 74% in 1980 (Interagency Forum on Child and Family Statistics). This demographic change is promoting higher education's efforts to provide a culturally diverse environment for students and to assess the outcomes associated with this culturally diverse environment. Additionally, higher education systems are verbalizing these commitments.

In 1998, the University of Wisconsin system was the first in the country to adopt a long-term plan to increase the diversity of its faculty and students. The *University System Quality Through Diversity Plan 2008* seeks to further enhance learning and respect for diversity in the areas of intellectual viewpoints, cultural heritage, gender, religious preferences, sexual preferences, and other human differences.

In 2000, over 500 students were surveyed at the University of Wisconsin-Whitewater to test the progress of the plan. The findings indicated that exposure to diversity positively influence student's cultural awareness and democratic citizenship (Johnson & Lollar, 2002). These results clearly support Astin and Gurins findings (1993 & 1997) that there is a definite link between exposure to diversity and more positive attitudes of acceptance and understanding of diversity. Therefore interracial interactions may be a determinant of global citizenship.

The American Association of Community Colleges (AACC) surveyed 1450 community college presidents to assess the state of race and ethnic relations and diversity programming in community colleges. The results showed that 57% of respondents agreed or strongly agreed on the importance of diversity programming. The campuses rated most harmonious tended to be larger (more than 30,000 students) or located in rural areas or southern regions with a higher percentage of minority faculty and/or students (Kee, 1999). This study indicated that there is a positive correlation between the minority percentage of students and/or faculty and a higher rating in harmonious campus climate. Additionally, retention and recruitment efforts are apparent in higher education.

Recommendations for recruitment and retention of minority faculty and students were made based on a literature review and a large-scale study of 29 Mid-western universities (Dumas-Hines, Cochran, & Williams, 2001). The four-point model is as follows:

1. Develop a university-wide philosophy statement that includes cultural diversity (mission statement).

2. Analyze the cultural diverse faculty and student composition on campus and set goals for enhancing diversity.
3. Conduct research on best practices/programs/ and activities that promote recruitment and retention of culturally diverse faculty and students.
4. Develop, implement, and evaluate a comprehensive plan for recruitment/retention activities that focus on enhancing cultural diversity on campus among faculty and student populations.

The role of racial interaction on college students' leadership and cultural knowledge was disentangled further by Antonio (2001). He looked at the differences of interracial contact among college students, including both casual contact and close friendships, to assess their effects on student leadership and cultural knowledge and understanding. The findings were that casual interracial interactions are most beneficial among students who tend to have racially homogeneous friendship circles. The most relevant finding to this study is that frequent interracial interactions among students are more beneficial in developing cultural knowledge and understanding than formal activities such as curriculum or cultural awareness workshops (Antonio, 2001).

Recently, Southwest Missouri State University published its justification for NCATE accreditation and cited results from four studies on multicultural assessment of their School of Education (2003). Using the Miville-Guzman Universality Diversity Scale (MGUD-S) the overall pattern of results from the studies were that the intensity of the multicultural training experience relates to measurable change over short periods of time and to the development of an appreciation of multiculturalism (Hulgus, Cox, & Anderson, 2003). These changes indicate the amount and type of multicultural contact

students were engaged in. Long-term effects are currently being assessed in a longitudinal study at this campus.

Therefore, the potential for interracial interaction in a campus environment will be used to measure this component of global citizenship. For the purpose of this study, the percentages of minority faculty and minority students were used rather than an assessment of the curriculum.

Civic Participation Literature

In Europe, global education is rooted in the world studies movement that attempts to "promote knowledge, attitudes, and skills that are relevant to living responsibly in a multi-cultural interdependent world" (Holden, 2000. p.75). Key aspects are learning morally and socially responsible behavior, involvement in the community, and learning the knowledge skills and values for an effective role in public life (political literacy).

Research in civic education and political behaviors became popular in the 1960s (Adelson & O'Neil, 1966; Hess & Torney, 1967) and identified it as important to schools. In the late 1960's Langton and Jennings did a study that reported that curriculum alone did not enhance political knowledge or engagement (1968). Over the next three decades a few researchers studied the potential positive role of civic education (Torney, Oppenheim & Farnen, 1975; Hahn, 1998), while others thought that civic citizenship curriculum was alienating students (McNeil, 1986).

One of the largest studies in civic education was presented by Torney-Purta in 2003. She tested the civic content knowledge of 90,000 14 year olds in 28 countries. The results showed that three important elements in schools were important in civic education, formal curriculum, classroom culture, and school culture. A case study of

Cornell University's college of human ecology attempted to contribute to "an educated citizenry" (Miles, 1990, p.13) to facilitate the needs of modern society. Miles discussed the importance of educated citizenry as a policy issue both from a participation viewpoint, and an economics of education policy tool. He found that at Cornell, involvement in political systems and ethical issues is encouraged of students and faculty, where in fact, presenting more than one viewpoint is encouraged.

Held (1995, 1996) vocalized the concept of cosmopolitan democracy in the mid-nineties. He challenged the notion of national/state democracy as being the only one of importance and cited increasing interdependence as the change agent. A re-conceptualization of cosmopolitan citizenship education comes from Osler & Starkey (2003) who stated that national citizenship education is no longer the ideal. Cosmopolitan citizenship education addresses peace, human rights, democracy, and development, and equips young people to make a difference at both the local and the global levels. This concept of incorporating cosmopolitan citizenship education is under much debate in higher education (see, for instance Gilroy, 1997; Hutchings & Danreuter, 1999: Kymlicka, 2001).

Olster & Starkey (2003) surveyed 600 young people aged 10-18 from four schools in a multicultural city in England and found that cosmopolitan citizenship does not mean rejecting their national citizenship. It implies recognition of our common humanity and a sense of solidarity with others. Furthermore, they report that education for cosmopolitan citizenship is about enabling learners to make connections between their immediate contexts and national and global contexts.

Political Literacy. The first significant sub-component of the civic participation facet of global citizenship is political literacy, consisting of voting behaviors and political knowledge. Both of these areas have suffered a decline in recent years. For example, the voting rates for 18-24 year old Americans has dropped significantly from 50% in 1972 to 32% in 1999 (National Association of Secretaries of State, 1999). College education has been documented as a significant contributor to voting behaviors and political knowledge.

In the 1990's, the Census Bureau reported an increase in actual voting as determined by educational attainment. For example, a little over 38% of the population with less than a high school degree reported that they voted in the last election, while 51.7% of high school graduates reported voting. Participants with some college reported higher levels of voting (63.1%), and 77% of participants with a bachelor's degree or more reported voting (Household Education Survey, 1996).

Political knowledge as an outcome to higher education has also been documented. According to the National Center for Education Statistics, only 15% of non-high school graduates could identify the political party who is more conservative on the national level. Of participants with a bachelor's degree or more, 42% answered this question correctly. When asked which party is in favor of a larger defense budget, 16% of non-high school graduates answered correctly, while 73% of degree holders had the correct response (Household Education Survey, 1996).

Information Literacy. Information literacy, and in particular techno-information literacy, are potential contributors to global citizenship. The ability to find, evaluate, and use information is vital to the global citizen. It allows for access to multiple perspectives

from multiple sources. Strong techno-information literacy skills combined with foreign language skills have been reported as useful to the global citizen, allowing for even more broad access to social issues, news, and world events (Davies & Evans, 2002). Information literacy integration allows student to make connections between their academic pursuits and real world issue from outside the classroom (Ellis, 2001).

This sub-component has been addressed in two ways on the American Civic Involvement survey-- newspaper reading habits and computer access and usage. The participants were asked about their daily newspaper reading habits. Those who did not graduate from high school read less (19%) than those with degrees (42%). Non-graduates were also less likely to read magazines (66%), compared with 94% of degree holders (Household Education Survey, 1996).

Computer use and access is also positively correlated with educational attainment. According to Mediamark Research Inc., 21.7% of respondents with a high school degree or less reported using the Internet for information. Respondents with some college reported using slightly more (26.4%), and 51.9% of college degree holders reported using the Internet for information (CyberStats, 1998). Concerning regular internet access, 48.7% of degree holders and 3.6% of non-graduates reported regular access to the internet (CyberStats, 1998).

Service Learning. The service-learning sub-component of civic participation includes volunteerism, organizational membership, and community services. In the past decade, both major political parties have vocalized the importance of service learning in higher education (Allen, 2003).

A review of the service learning research shows that the approach yields four benefits to college students. Academic learning, civic responsibility, personal and social development, and opportunities for career development have all been reported (Billig, 2000). A recent report from the National Commission on Service Learning (2002) as well as one from Fiske (2002) argued that a good program will include meeting the needs of the community, has strong ties to academic content, and involves students from design to implementation and evaluation.

Community service has also been positively correlated with educational attainment. The ACI reported that on-going community service behaviors increase from 13% (non-high school graduates) to 52% for degree holders. Volunteer work ranged from 29.9% to 67.2% respectively. Organizational membership also showed a positive relationship (Household Education Survey, 1996).

The literature on civic participation as an educational goal and outcome is extensive. Much theory exists about the importance of the role of higher education facilitation in civic life and in producing civic outcomes. However, the literature provides little information concerning the civic participation component of global citizenship. It appears that specific behaviors are increased by higher education, but the institutional efforts that cause the change remain unclear and as yet, unmeasured.

Summary

The literature yields at least three major components of global citizenship: environmentalism, social justice, and civic participation. An important message from the literature is that researchers must be careful to avoid attitudinal measurements because they do not necessarily equate to behaviors. Espoused attitudes could be a variable that

appears to be a determinant; but if the subsequent behaviors are not present, they could potentially send higher education policy efforts in the wrong direction. Many institutional determinants of global citizenship are possible, but this study will focus on the institution as a role model. The focus will be on the institutional factors that contribute to variation in the global citizenship scores, as well as in the three facets that make up the overall index.

Chapter 3: Research Design and Methodology

Rationale for the Study

To better understand the level of global citizenship among college and university students in the United States, this study surveyed graduate students at two Southern California universities on such topics as environmentalism, acceptance of diversity, and civic participation. In the first part of this quantitative study, a survey instrument was developed and tested. Students were surveyed, and then survey questions were numerically scored and four indices of global citizenship developed for each respondent (e.g. environmental citizenship index, social citizenship index, civic citizenship index, and global citizenship index). For each of these indices, descriptive analysis was used to characterize the current nature of global citizenship among graduate college students in the schools of education at two Southern California universities. In the second part of this study, hierarchal regression analysis was used to decompose the variation in these indices into institutional and demographic factors so that institutions can develop a unique understanding of their contribution to their students' global citizenship. The following sections address sampling methods, instrumentation, data collection and analysis procedures, and limitations to this study.

Sampling Procedures

The purpose of this study was to both develop the measurement tool and to identify the demographic and institutional determinates of global citizenship and its three indices. The sample procedures for this study began with identifying the population and schools that were used. An appropriate sample size was computed and participants were surveyed based on selection rules; specifically, potential respondents were contacted

through the graduate courses that they were enrolled in at one of two Schools of Education during spring semester 2004. Both the sample population and national demographics are important to consider for generalizability.

According to the U.S. Department of Educations' National Center for Statistics, Integrated Post-Secondary Education Data System (IPEDS) there were 1,850,271 graduate students enrolled in American post-secondary institutions the fall semester of 2000. Women made up 50.8% and men were 49.2%. Ethnic breakdowns were 61.7% white, 7.9% African American, 4.7% Hispanic, 4.6% Asian or Pacific Islander, .5% American Indian and 12.6% non-resident aliens (IPEDS, 2003). California's graduate student population in 1995 was the fifth largest per capita graduate enrollment in the U.S. With 207,082 enrolled graduate students, California has an impressive 62% of the population enrolling for graduate degrees (IPEDS, 2003).

Two schools were chosen to sample graduate students, one large public university (School A) and one smaller private Catholic university (School B). These schools were chosen because of the convenience of their geographic proximity. However, because School A is a large public institution and School B is a smaller private Catholic institution, they are similar in many ways to many non-elite graduate schools in the nation.

In terms of enrollment, School A's graduate student population in fall of 2003 was 6,057. School of education graduate students made up of 13.5% of all the graduate students. Although ethnicities of only school of education graduate students were not available, 60% of the graduate students were female and 40% male. Of the graduate students enrolled at School A 46.1% were white, 9.3% were Asian/Pacific Islander, 2.4%

were African American, 14.2% were Hispanic, 15.7% were other or not stated, and 11.4% were international non-residents.

School B's graduate student population (not including the Law School) in fall of 2004 was 1,464. Females made up of 62% of the graduates and 38% were male. Of all the graduate students at School B, two out every three of them are in the School of Education. Although the ethnicities of the School of Education graduate students was not available, the ethnicity breakdown for the entire graduate school population at School B, was 57% White, 6% Asian/ Pacific Islander, 3% African American, 10% Hispanic, 1% American Indian, 17% unknown, and 6% international or non-resident. For a comparison of national graduate students to the weighted sample population of graduate students see Table 3.1.

Table 3.1
Demographics of Graduate Students

	National Graduate Students	School's A &B Graduate Students
Female	50.8%	56.42%
Male	49.2%	43.58%
Caucasian	61.7%	48.28%
African American	7.9%	2.5%
Hispanic	4.7%	13.51%
American Indian	.5%	.16%
Asian /Pacific Islander	4.6%	8.8%
International	12.6%	10.5%
Other Non-reported	0%	15.91%

Ideally, the sample for this study would be a close representation of the national graduate student population. However, because of the close proximity to the Mexican boarder, the sample for this study has more diversity than seen in national statistics. As a result, both Hispanics and Asians are more represented in this study's sample than in the national averages.

The sample size for this study followed suggestions based on the number of predictor variables in the research design. The simple rule for testing multiple correlations is $N \geq 50 + 8m$ (where m is the number of independent variables) (Tabachnick & Fidell, 2000). This study includes 18 potential independent variables, 12 from the survey and an additional six from institutional data that was collected for each school that respondents received degrees from (see Appendix C). Therefore, the minimum sample size for this study was 194 participants, 194 = 50+8(18). The final sample size was 217 before data entry. However, because nine surveys were filled out by undergraduate students enrolled in graduate level courses, these surveys were not included in the data analyses.

Each participant was asked to list previously attended degree granting institutions. This technique allows for all degree granting institutions to be assessed and compared instead of comparing just the two currently attended institutions. Of course, by limiting the sample to graduate students enrolled in one of two Schools of Education in Southern California, this limits the generalizability of the results. However, the real purpose of this study was instrument development and the identification of the significant determinants of global citizenship, not to be externally valid to all students. An additional benefit of this sampling plan is that the homogeneity of the selected graduate students may control for socio-economic and psychosocial factors that could be confounding factors in other studies.

Instrumentation and Data Collection

Instrumentation

Data was collected from four sources: a survey, the Integrated Post-Secondary Educational Data Set (IPEDS), the ranking on minority degrees granted scale (Borden & Brown, 2004), and from each institution listed by participants as degree granting institutions. These collected variables were combined with survey data for analyses. The survey is in four parts: demographic information, environmental orientation, social justice orientation, and civic participation actions and knowledge. The variables, their sources, and how they were used in the analysis can be seen in Table 3.2. Note that some variables in this table have the potential to be used as either an independent variable or a dependant variable depending on both the results of instrument reduction, and what index was being used. The techniques used to construct the four sections of the survey are discussed in the following section.

Table 3.2
Variables, Usage and Sources

Variable	Usage	Source
Gender	IV	Survey
Age	IV	Survey
Ethnicity	IV	Survey
Current school	IV	Survey
Major	IV	Survey
Degree	IV	Survey
Recycling Perceptions	IV	Survey
Personal Recycling	IV/DV	Survey
Languages	IV/DV	Survey
Education Abroad	IV/DV	Survey
Information Literacy	IV	Survey
Energy Conservation	IV/DV	Survey
Global Citizenship Score	DV	Survey
Environmental Score	DV	Survey
Social Justice Score	DV	Survey
Civic Participation Score	DV	Survey
Minority Degree Ranking	IV	Institutional ranking
** % Of Minority Students	IV	IPEDS
** % Of Minority Faculty	IV	IPEDS
% International Students	IV	IPEDS
GC Commitment	IV	Institution
Community College	IV	IPEDS

The survey items consisted of several newly constructed questions on behaviors as well as items adapted from three widely used questionnaires; The New Ecological Paradigm Scale (Dunlap, VanLiere, Mertig, & Jones, 2000), the Miville-Guzman Universality-Diversity Scale short form (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000), and adapted questions from the National Household Economic Survey Adult Civic Involvement (ACI) Interview (1996).

The first part of the survey contains a number of demographic variables including gender, ethnicity, age, college of enrollment, major, degree sought, and institutions that

participants have received a college degree from. In addition to the demographic questions, the survey contains a section on each of the three facets of global citizenship. A complete copy of the original survey instrument is shown in Appendix B. Parts two through four of the survey instrument are newly constructed items combined with items adapted from widely used instruments in each of the three areas.

The second part of the survey contains behavior and perception items. Behavior items are on recycling and energy conservation actions. The remaining items are from the New Ecological Paradigm (NEP) scale, which is a revised edition of the New Environmental Paradigm Scale created in 1978 (Dunlap & Van Liere). This scale is widely used to measure pro-environmental orientation in college student populations. It is designed to improve upon the original scale by tapping into a wider range of facets of an ecological worldview, offering a balance of pro and anti-environmental items, and avoids outmoded terminology (Dunlap et al., 2000). Part two of the survey items (10- 17) were adapted from the revised NEP Scale. Of the six items, three are pro-environmental and three represent anti-environmental orientations.

Strong correlations between items on the revised NEP Scale yield a respectable Cronbach's alpha of .83, thus showing that the set of 15 items represent an internally consistent measuring instrument (Mueller, 1986). Additional support on the revised NEP's 15 items internal consistency has been established via principal-components analysis and all 15 items weighted heavily (from .40-.73) (Zeller & Carmines, 1980). Both predictive and construct validity have long been established for the NEP Scale (Albrecht, Bultena, Hoiberg, & Nowak, 1982; Arcury & Christianson, 1990; and Jones & Dunlap, 1992; Dalton, Gontmacher, Lovrich & Pierce, 1999).

The third part of the survey items (18-25), are adapted from the Miville-Guzman Universality-Diversity Scale Short Form (M-GUD-S). Miville introduced the construct of universal diverse orientation that is defined as an awareness and potential acceptance of both similarities and differences in others. This awareness is characterized by interrelated cognitive, behavioral, and affective components (1999). The short form of M-GUD or M-GUD-S, has been proven adequately reliable through three studies of factor structure (Fuertes et al., 2000). The MGUD-S instrument has been correlated with other instruments and that universal-diverse orientation was found to be a predictor of students' attitudes towards their academic self-confidence, and diversity orientation (Fuertes, Sedlacek, & Mohr, 2000).

The third part of the survey includes both behavioral and perceptional questions. The behavioral questions include foreign language proficiency and the participant's study abroad experience. The perceptional items come from the MGUD-S which is a 45-item questionnaire that measures three facets of universal diverse orientation, diversity of contact (DC), realistic appreciation (RA) and sense of connection (SC). Two items from each facet are included in this survey. Items 18 & 22 represent RA, items 21 & 23 represent SC, and items 19 & 20 represent DC. An added benefit of the MGUD-S, as previously noted in the literature review, is that it has been used extensively on college student populations.

The fourth and final part of the survey consists of questions 26-34 and has been adapted from the Adult Civic Involvement interviews of the National Household Economic Survey. This instrument was developed by the National Center for Education Statistics (NCES) in 1996, to assess civic involvement. The Adult Civic Involvement

telephone interview has been adapted to survey format. This instrument was chosen because it measures actions and knowledge instead of attitudes. The complete interview questions from Adult Civic Involvement can be accessed at the NCES website (http://nces.ed.gov/).

Once the surveys were collected, three additional data sources were used to gather information on the institutions that participants had listed as granting them a degree (for a complete list of schools and school data see Appendix C). This institutional data was collected from the IPEDS 2002 database, institutional websites and the ranking of the top 100-minority degree granting institutions for both universities and community colleges (Borden & Brown, 2004). The IPEDS variables include the percentages of minority undergraduate students and full-time faculty, a community college variable, and the percentage of international students on campus. For the analyses of these institutionally collected variables, School 1 was the current institution and School 2 was the institution where the next most recent degree was obtained. Because only a small portion of the sample (63) held more than three degrees a decision was made not to add additional models for School 3.

Global citizenship in mission statements was collected from each the institution's mission statements via the internet. "The list", as it is called, is a ranking of the top 100 schools based on the number of degrees that are granted to minorities (Borden & Brown, 2004). For the purpose of this study, both "the list" for universities and "the list" for community colleges were used as needed. Despite the obvious utility of such a list, it is important to note that some private institutions may not be included in the evaluation, because they did not specifically request to be a part of it. Because of this limitation, the

percentage of minority students on campus was the preferred variable used in the analysis to capture this important factor.

Data Collection Procedures

Graduate students enrolled in the Schools of Education (SOE) at both schools A & B were accessed two ways--either as part of a graduate course or as a randomly selected individual. When contacting potential participants, a brief introduction identifying the researcher as a doctoral student from USD and a brief description of the research design was given. Implied consent was identified in the brief description of the research project that accompanied the survey. Participants were made aware of the survey's anonymity and that they were under no obligation to participate. The survey had a cover letter attached that briefly described the four parts of the study, how the data would be used, and contact information for the researcher and her advisor in the event that they felt the need to talk about their participation, or if they wanted a summary of the project after its completion.

After the surveys were received, the data was coded and entered into version 13.0 of the Statistical Package for the Social Sciences (SPSS) for analysis. Although the initial decision was to exclude any surveys with more than seven missing items, no surveys in the sample (N=217) met this condition so none were discarded due to missing values. For those participants that entered a score between two stated values e.g. "3.5" instead of "3" or "4", the stated number was entered. However, if the stated value were more than the highest or less than the lowest possible choices, then rounding to the closest possible value was used. For those surveys missing less than seven items, the sample mean score

was substituted for the missing value, however any missing demographic data caused the survey to be excluded from the regression analyses.

Because all of the individual instruments that many of the questions were drawn from have been tested for reliability and validity, factor analysis of the combined items was performed and reported. This process consisted of two parts—first reversing the scoring of all items that were written in the negative, so that a rating of "1" became a "5", a "4" became a "2" and so on. Questions that required yes or no answers were scored a "5" for yes and a "0" for no. For example, if a participant answered yes to the "do you recycle at home" question, they would be assigned a score of "5" on that item. As such, higher scores on the instrument reflect higher levels of global citizenship. After this recoding was completed, factor analytic techniques (discussed in chapter four) were then applied to various items to reduce the set of items that statistically hung together, and final scores were then assigned to each of the three facets as well as an overall global citizenship score calculated.

Once data from the survey was entered, a list of previously attended institutions was created. From that list, the institutional variables for each school were collected form IPEDS and the institutional websites and were added to the database. The institutional data included, the ranking of the particular institution on the minority degrees granted scale; the percentages of minority faculty and international students at the particular institution; type of institution; and a dichotomous variable reflecting whether or not an institution had a commitment to global citizenship in their mission statement.

Data Analysis

Data analysis design was dictated by the research questions in this study, which can be stated as:

1. What is the current state of global citizenship in a population of graduate student enrolled in two Schools of Education in Southern California?
2. Among these students what variables are correlated with global citizenship scores and which of them are demographic and which are institutional?
3. How much variation in global citizenship can be accounted for through the demographic and institutional variables used in this study?

To answer the first research question each survey was scored and the means and standard deviation for the entire sample calculated and presented. Specifically, tables are presented showing descriptive statistics for all the independent variables as well as for each survey item and the total global citizenship scores. To answer the second research question—bi-variate correlational analysis was conducted that revealed which of the correlated variables were demographic, and which were institutional.

The third research question--How much variation in global citizenship can be accounted for through the demographic variables used in this study, and how much variation in global citizenship scores can be accounted for through the institutional variables used in this study?--was addressed through a two-stage hierarchical regression analysis. In the first stage, demographic measures were used to explain the variation in student scores, while in the second stage, institutional variables allow for the reporting of institutional determinants of global citizenship.

A series of regression analysis models were used to differentiate the affects of demographic and institutional determinants of global citizenship. Using overall global citizenship scores and each index score as dependant variables, models for demographic and institutional factors were computed. From these two-stage models, best-fit models for both demographic and institutional independent variables were used to make inferences about the effects of these variables on the three individual components of global citizenship score. From these best-fit models, the significant institutional determinants of global citizenship are reported.

Limitations of the Study

The most notable limitation to this study is the geographic location of San Diego and its proximity to the Mexico border. This limitation may contribute to substantial differences from the overall population of graduate students because of the larger representation of the Latino population when compared to the national graduate student population.

Another limitation involves a different sort of geographic bias—the distribution of degree granting institutions. Although the demographics of the sample suggest significant variation in previous degree granting institutions, unfortunately many of them are on the west coast. Because graduate students are by nature a diverse group, this selection bias is a factor that should be acknowledged as a limitation.

Lastly, all of the diversity variables that may have an impact on global citizenship are not being assessed due to their personal and intrusive nature. For example, sexual orientation, ageism, and religious acceptance are all examples of potential determinates of global citizenship: however these questions were not asked due to their personal

nature. Additionally, some of the variables included in the literature such as country specialization are not included in this study. As a result, the global citizenship scores and determinates are based only on the factors included in this design.

Significance of the Study

Benefits from this study include contributing to the knowledge base on global citizenship as a social benefit to American higher education. The long-term goal of this line of inquiry is to develop methods to assess the effectiveness of global citizenship efforts in higher education institutions. This can only be done if a clear understanding of the meaning of global citizenship is presented, assessment techniques developed, and determinants identified through regression analysis.

The results of this research have several potential implications. For example, the results of this study can help academic administrators make informed policy decisions when making and assessing global citizenship policies. Additionally, this work may contribute to the development of cross-institutional assessment tools for global citizenship efforts. Perhaps most importantly, this study provides an operational definition to the complex construct of global citizenship.

Chapter 4: Results

Introduction and Overview of Results

Four levels of data analyses were used in this study of global citizenship. Factor analyses, descriptive statistics, correlational matrices, and regression analyses were used to answer the research questions that guided this line of inquiry. Instrument reduction, understanding what global citizenship looks like, identifying its correlates, and ultimately defining the institutional and the demographic determinants were accomplished through the analyses.

The first analytic technique used in this study was factor analysis and it was used to reduce the number of items on the original survey instrument to a subset of items that were essentially uncorrelated with each other. After the remaining items were then scored and summed to produce an overall global citizenship score for each respondent, descriptive statistics were used to demographically describe the sample, including means and standard deviations for the global citizenship score as well as the response to each item on the reduced survey instrument. After the descriptive analysis was completed, correlational analysis was then used to first identify the significant correlates of global citizenship through the use of bi-variate correlations and then more extensively through the use of regression analysis.

Instrument Reduction Procedure

As described in the previous paragraph, factor analytic techniques were first used to reduce the set of eight items within each subscale to a subset of items that were essentially uncorrelated with each other. This was accomplished by first examining, the bi-variate correlations between all the items in each subscale and then eliminating

individual items that were strongly correlated with other within-scale items. The goal of this analysis was to identify a final set of items that were uncorrelated with each other at the p= .05 level, and as shown in Tables 4.1-4.3, the final items within each subscale met that criterion.

Table 4.1:
Reduced Environmentalism Items Correlation Matrix

Sig. 1-tailed	Natural resources	Plants & animals	Recycle at home	Conserve energy
Natural resources		.168	.401	.472
Plants & animals	.168		.385	.099
Recycle at home	.401	.385		.183
Conserve energy	.472	.099	.083	

Table 4.2:
Reduced Correlation Matrix for Social Justice Items

Sig. 1-tailed	Tolerance	Comfort	Events	Travel abroad
Tolerance viewpoints		.251	.463	.071
Comfort	.251		.436	.271
Events	.463	.436		.293
Travel abroad	.071	.271	.293	

Table 4.3:
Reduced Correlation Matrix for Civic Responsibility Items

Sig. 1-tailed	News	Comm. Service	Internet	Registered Voter
News		.144	.098	.295
Community service	.144		.464	.167
Internet	.098	.464		.148
Registered	.295	.167	.148	

When these techniques were applied to the three subscales--environmentalism, social justice, and civic responsibility--each of the subscales was reduced from eight items to four. The four remaining items in each subscale were then scored (at five points per item) and summed to produce the overall 60-point global citizenship scale. Table 4.4 reports the survey items that were omitted through factor analyses.

Table 4.4:
Survey Items Omitted

Facet	Survey Item
Omitted Environmentalism Items	• We are approaching the limit of the number of people the earth can support. • Humans are severely abusing the environment. • The so-called ecological crisis facing humankind has been greatly exaggerated. • Humans will eventually learn enough about how nature works to control it.
Omitted Social Justice Items	• I have friends of differing ethnic origins. • I do not know too many people from different countries. • It is hard to find things in common with people from another generation. • Do you speak any other languages than English?
Omitted Civic Items	• How often do you read the newspaper? • Which major party is in favor of a larger defense budget? • Which of the major parties is more conservative at the national level? • Do you vote in national elections?

Descriptives

Descriptive statistics were computed for the all demographic variables, survey items, and institutional data. However, nine surveys were omitted from the analyses

because the participants did not meet the requirements for inclusion in this study. Specifically, the participants were undergraduates enrolled in graduate courses at SDSU. As a result, the final sample size for data entry was 206. Next, descriptive statistics were computed for all survey data and this information is reported in Table 4.5.

Table 4.5:
Demographic Descriptives

Variable	Mean	Standard Deviation	Frequencies	Range
Gender	.74	.44	26.3% Male 73.2% Female	0-1
Ethnicity	2.11	1.96	56.6% Caucasian 21.2% Mexican 7.1% African American 2.0% Bi-Racial 2.5% American Indian 0.5% East Indian 1.5% Filipino 6.1% Asian 0.5% Persian 0.5% Puerto Rican	0-10
Age	29.79	8.56	n/a	20-60
Current School	.62	.49	61.6% USD 37.9%SDSU	0-1
Major	3.31	2.33	26.8% Leadership 3.0% MFT 43.4% Counseling 3.0% Teaching 7.6% Education 2.0% Literacy 2.5% Ed Tech 2.5% Special Ed 6.1% School Psych 1.0% Speech Path	0-10

The gender makeup of the sample was 26% male and 74 % female. Ten ethnicities were reported, 56.6% were Caucasian; 21.2% Mexican American; 7.1% African American; and 6.1% Asian. When compared to the national population of

graduate students, this population has more Mexican-Americans and more Asians represented. The age range of the sample was from 20 to 60 years old.

The institutional variables used in this study were collected from IPEDS, mission statements, and "the list" that ranks institutions based on the amount of degrees granted to minority students. For the coding of these institutionally collected variables, School 1 was the school that a participant is currently enrolled in. School 2 was the last institution that granted the participant a degree, and School 3 was the institution that granted a degree before School 2. However, only 63 participants listed a school 3 on their surveys, therefore School 3 was not used in further analyses due to the small sample size. Slightly more than 10% of the students report attending a community college. Percentages of minority students, faculty, and international students were also used as institutional variables to quantify the potential for inter-ethnic interactions on campuses. The inclusion of the term global citizenship in an institution's mission statement was collected from individual institution's websites. Descriptive statistics including means, standard deviations, frequencies, and ranges are reported for institutional variables in Table 4.6.

Table 4.6:
Institutional Descriptives

Variable	Mean	Standard Deviation	Frequencies	Range
Community College	.1	.30	89.4% No CC 10.1% Yes CC	0-1
School 1 Percentage Minority ranked	.38	.49	61.6% Not Ranked 37.9% Ranked	0-1
School 1 Percentage Minority Students	38.05	10.4	n/a	29.9-51.3
School 1 Percentage Minority Faculty	18.53	1.70	n/a	17.2-20.7
School 1 Percentage International Students	2.59	.24	n/a	2.4-2.9
School 1 GC Mission	.62	.49	37.9% No 61.6% Yes	0-1
School 2 Percentage Minority Ranked	.43	.50	56.1% No 42.9% Yes	0-1
School 2 Percentage Minority Students	40.12	18.10	n/a	5.6-84.4
School 2 Percentage Minority Faculty	18.46	6.80	n/a	1.4-40.6
School 2 Percentage International Students	3.08	2.60	n/a	.1-16.2
School 2 GC Mission	.43	.50	n/a	0-1

The descriptive analyses of the items on the reduced survey instrument provide a snapshot of the sample and the current state of global citizenship in this graduate student population. Through examining the means, standard deviations, and ranges of the reduced

survey items, a picture emerges of what global citizenship looks like in this population. Significant variation can be seen in the scores of all three facets and overall global citizenship. Descriptive statistics for the items on the reduced Global Citizenship Scale are shown in Table 4.7

Table 4.7:
Descriptive Statistics for Reduced Survey Items

Variable	Mean	Standard Deviation	Range
Natural Resources	2.56	1.31	1-5
Plants & Animals	4.11	1.20	1-5
Recycle at Home	3.62	2.23	0-5
Conserve Energy	4.67	1.24	0-5
Environmental Total	14.96	3.28	6-20
Tolerance Viewpoints	4.54	.66	2-5
Comfort	4.68	.77	1-5
Events	3.89	1.24	0-5
Travel Abroad	2.21	2.49	0-5
Social Justice Total	15.31	3.08	7-20
News	4.21	1.04	0-5
Community Service	2.50	2.50	0-5
Internet	4.81	.50	1-5
Registered	4.62	1.26	0-5
Civic Total	16.14	3.04	8-20
Global Citizenship	46.42	6.12	32-59

Regression Models

In an effort to facilitate the specification of the regression models, bi-variate correlations were computed between each demographic and institutional variable and the overall global citizenship score. This procedure identified the significant correlates of global citizenship scores among the demographic and institutional variables so that they could be used in best-fit models. For example, age and language showed statistically significant ($p \leq .05$) correlations with the overall reduced global citizenship scores; therefore they were used in the final models. Within each of the facets other significant determinates were also identified and they will be explained further in the regression models.

Regression analysis models were built in a multi-step process. First models including only demographic variables were computed and then models including only institutional variables were computed. This initial two-step process was repeated for the overall global citizenship score as well as for each of the each three indices that comprise the overall global citizenship score. Specifically, the two-step process allowed for step three (the construction of four best-fit regression models) to be more efficient. These best-fit models relied on the two-step process to identify significant correlates that could be added to variables that the literature has suggested as being significant. These best-fit models were used because they explained the maximum amount of variation in the index scores, given the independent variables used in the analysis.

Taken together, eight regression models were computed for the four indices (global citizenship, environmental citizenship, social citizenship, and civic citizenship). The first set of models included only the demographic variables and the second added

institutional variables. Two significant demographic variables emerged from this analysis--age and gender. Age was significant in both the global citizenship index and the environmental citizenship index and had a positive effect, suggesting that as a participant's age increases, so do the scores on these two indices. The other important demographic variable, gender, was only borderline significant for overall global citizenship scores ($p= .05$) and significant ($p\leq .05$) for the environmental index. The estimated coefficients were positive, revealing that women have significantly higher scores on these indices than did men.

Following the demographic models, institutional models were computed. These models (5-8) included only institutional variables and were able to explain up to 15.5% of the overall variation in the index scores. For the institutional variables, effects on overall global citizenship scores (Model 5) showed statistical significance ($p\leq .05$) and identified 14% of the overall variation. This variation in global citizenship scores was determined solely by the acquisition of a foreign language. Information literacy instruction was borderline significant and may prove to be a useful variable in future research. The next model (6) included only the institutional variables effects on the environmentalism scores and failed to show statistical significant for the model. Model 7 included only institutional variables effects on the social justice scores and the ANOVA showed statistical significance ($p= .03$). This model identified 15.5% of the overall variation in social justice citizenship scores is determined by acquisition of a foreign language. Perception of school 2 recycling was borderline significant and may prove to be a useful variable in future research. Model 8 included only institutional variables affects on the

civic responsibility scores and failed to show statistical significance for the model. From these models the best-fit models were then constructed.

In summary, the initial two-step regression modeling revealed that institutional effects were more important than demographic effects in the first stage of regression analyses. This is interesting because of course the institutional variables can be manipulated, unlike the demographic variables. The two-step regression procedure led to the following best-fit models for each of the four indices.

Models 9-12 represent the best-fit regression models for global citizenship and each of the three facets (Model 9) for global citizenship; Model 10 for environmental citizenship, Model 11 for social citizenship, and Model 12 for civic citizenship. These models were constructed to explain the largest percentage of overall variation in the respective dependant variables. Model 9, the regression analysis for global citizenship scores explained 25% of the overall variation in the scores. The ANOVA for the model showed statistical significance of p= .00. As shown in Table 4.8 the significant determinants of global citizenship scores in this model were age (p= .01), population sustainability views (p= .00), ethnic acquaintances (p= .00), and foreign language acquisition (p= .01). All of these significant variables had positive estimated coefficients. Therefore, as age, beliefs in population limitations, and ethnic acquaintances increase, so does the global citizenship score. Additionally, if a participant reported the acquisition of a foreign language, the score on this scale increased significantly. Although both reciprocal and quadratic versions of the age variable were computed, neither of these non-linear specifications proved significant for each of the continuous variables.

Table 4.8:
Reduced Global Citizenship Score (Model 9)

	Estimated Coefficients	Standard Error	*t*-statistic
(Constant)	30.32	2.3	13.19
Gender	1.56	.90	1.73
Ethnicity	.08	.21	.40
Age	.13	.05	2.85**
Sustainability Views	1.00	.33	3.05**
Ethnic Friends	1.59	.32	4.93***
Language	2.29	.86	2.66**
R Square= .25 Adjusted R Square= .22			

* $p \leq .05$, ** $p \leq .01$, ***$p \leq .00$

The regression analysis for environmental citizenship scores (Model 10) explained 21% of the overall variation in this index. Moreover, the ANOVA for the model showed statistical significance of p= .00. As shown in Table 4.9 the significant determinants of environmental citizenship scores in this model were gender (p= .02), age (p= .01), percentage of international students at school 2 (p= .03), foreign language acquisition (p= .01), registered to vote (p= .05), and reading the newspaper (p= .03). Reading the newspaper, perceptions of recycling at school 1, and registered to vote all had negative effects on environmental scores, which will be discussed in detail in the next chapter. The remaining significant variables all had positive estimated coefficients. Again reciprocal and quadratic equations were computed for each of the continuous variables, but none were significant.

Table 4.9:
Reduced Environmental Citizenship Score (Model 10)

	Estimated Coefficients	Standard Error	*t*-statistic
(Constant)	14.74	1.65	8.98
% International Students S2	.21	.97	2.15*
Gender	1.31	.56	2.34*
Age	.08	.03	2.71**
Ethnicity	-.03	.13	-.21
Language	1.32	.51	2.58*
Newspaper	-.44	.20	-2.19*
Recycling S1	-1.25	.76	-1.64
Registered	-.37	.19	-1.98*
R Square= .21		Adjusted R Square= .16	

*p ≤ .05, ** p ≤ .01, ***p ≤ .00

The regression analysis for social justice citizenship score (Model 11) was able to explain 16.1% of the overall variation in social justice citizenship scores. The ANOVA for the model showed statistical significance (p= .00). As shown in Table 4.10, the significant determinants of social justice citizenship scores in this model were the reciprocal equation for percentage of minority students of school 2 (p= .01), reduced environmentalism score (p= .00), and community college (p= .01). All significant variables in this model had positive effects on the overall social justice scores. Again, the reciprocal and quadratic equations were computed for each of the continuous variables, however the reciprocal specification for minority students at school 2 was significant for reduced social justice citizenship scores, suggesting that as a campus increases its minority students, participants will continue to score higher but at a decreasing rate.

Table 4.10:
Reduced Social Justice Score (Model 11)

	Estimated Coefficients	Standard Error	*t*-statistic
(constant)	9.43	2.10	4.50
Gender	.60	.61	.99
Ethnicity	-.03	.13	-.23
Age	-.04	.04	-1.21
Reciprocal Minority Students	24.78	9.97	2.49*
Environ total	.26	.08	3.11**
S2 Recycle	1.75	.95	1.84
Comm. College	2.49	.97	2.57**
Degree	.88	.60	1.47
R Square= .16		Adjusted R Square = .11	

* $p \leq .05$, ** $p \leq .01$, ***$p \leq .00$

The regression analysis for civic citizenship score (Model 12) was able to explain 11.1% of the overall variation in civic citizenship scores. The ANOVA for the model showed statistical significance (p= .00). As shown in Table 4.11, the significant determinants of civic citizenship score in this model were voted (p= .01), (voted can be used as an IV in this model because the factor analysis dropped this item from the survey), current major (p= .01), and recycle (p= .02). Again, reciprocal and quadratic equations were computed for each of the continuous variables, however none were significant.

Table 4.11:
Reduced Civic Citizenship Score (Model 12)

	Estimated Coefficients	Standard Error	*t*-statistic
(constant)	13.92	.94	14.75
Age	3.90	.03	1.54
Voted	1.51	.40	2.63**
Major	-.23	.09	-2.57**
Recycle Home	1.12	.48	2.32*
R Square = .11		Adjusted R Square= .09	

* $p \leq .05$, ** $p \leq .01$, ***$p \leq .00$

Summary of Regression Models

Significant determinants of global citizenship and each of its three facets were identified through a series of regression analyses and this information can be found in Table 4.12. Global citizenship determinants ($p \leq .05$) were age, population sustainability, ethnic acquaintances, and language. As age and the potential for inter-ethnic interactions increases, so does global citizenship. In addition, having an understanding of earth's limited resources also increases global citizenship scores as does acquiring a foreign language.

Statistically significant determinants ($p \leq .05$) of the environmental citizenship index were gender, age, percentage of international students at school 2, language, and reading the newspaper. Age and language were both significant and had positive coefficients as they did in the overall global citizenship scores. Specifically, women scored significantly higher on the environmental citizenship scale than men. Furthermore, the estimated coefficient for reading the newspaper revealed that the more frequently a participant reports reading the paper, the less they score on the environmental citizenship index. As in the overall global citizenship index, the potential for inter-ethnic interactions had a significant effect on the environmental citizenship score (In this model it was the percentage of international students on campus that measures the inter-ethnic interaction potential).

Statistically significant determinants ($p \leq .05$) of the social justice citizenship index were the reciprocal equation for percentage of minority students, environmentalism total, and community college. Examination of these estimated coefficients revealed that students that had previously attended a community college were more likely to score

higher on the social justice index. The reciprocal equation for the potential for inter-ethnic interaction (minority students) was also a determinant of the social justice citizenship index, suggesting that as a campus increases its minority students, participants will continue to score higher but at a decreasing rate.

As shown in Table 4.12, three determinants of the civic citizenship index were statistically significant ($p \leq .05$); i.e. voting, major and recycling at home. The effects of voting on the civic citizen index scores had positive estimated coefficients, revealing that if a participant reports that they vote, their score will increase on this index. The same holds true for recycling behaviors, that is, if a participant reports that they recycle at home they score significantly higher on the civic citizenship index.

Table 4.12
Significant Variables in Citizenship Indices

Global Citizenship	Environmental Citizenship	Social Citizenship	Civic Citizenship
Age Language Sustainability Ethnic Interactions	Gender Age International Students Language Newspaper	Reciprocal of Minority Students Environmental Citizenship Community College	Voted Major Recycle at Home
R Squared= .25	R Squared= .21	R Squared= .16	R Squared= .11

Chapter 5: Discussion

Overview Of Discussion

This chapter discusses the research project and its findings as well as provides a brief overview of the study and its methodology. This section begins with a brief overview of the research study and is followed by a discussion about the procedures used to construct the instrument. Next, the findings are discussed by research question and then contextualzed within the current literature. Finally, the policy implications of the findings are examined in detail, followed by suggestions for future researchers interested in this topic.

This quantitative study used survey research combined with institutional data that was coded and analyzed through the use of descriptive statistics, bi-variate correlations, and ultimately, regression analyses. Graduate students from two Southern California Schools' of Education were randomly selected and asked to fill out a survey that included demographic questions, as well as their personal perceptions, attitudes and behaviors on the three facets in this study that make up global citizenship (i.e. environmentalism, social justice, and civic responsibility). Each participant was also asked to list the schools from which they had received degrees before enrolling in their current degree program, allowing for select institution-specific data to be gathered from 125 different colleges and universities. This data was collected from Integrated Post-Secondary Educational Data Set (IPEDS), the individual institutions, and the ranking of minority degree-granting institutions.

Factor analysis was then used to reduce the survey from 34 items to 23 items, creating a statistically sound instrument for assessing global citizenship (Appendix D).

This process involved the creation of three separate 20-point indices, one each for environmentalism, social justice, and civic responsibility, which were then summed to produce the 60-point Global Citizenship Scale. The creation of these indices also allowed for a subsequent regression analysis on both the overall global citizenship scores and the individual indices scores, thereby providing insights into the correlates of these constructs.

Demographic and institutional variables were combined with the reduced survey items for analyses. The demographic variables in the analysis were; gender; age; ethnicity; major; and current degree sought, while the institutional variables used were; minority degree rank; percentage of minority students; percentage of minority faculty; percentage of international students; global citizenship in mission statement; and community college student. Potential independent variables from the survey items included voted; recycle at home; conserve energy at home; educational travel; language acquisition; and information literacy instruction.

Through the use of regression analyses, the determinants of global citizenship and each of its indices were identified. Recall that for the overall global citizenship index, the significant determinants were age; population sustainability; ethnic acquaintances; and language. All of these had positive estimated coefficients. Statistically significant determinants of the environmental citizenship index were gender; age; percentage of international students at school 2; language; and reading the newspaper. All of these variables had positive estimated coefficients except for reading the newspaper, which meant that as reading the newspaper increases, scores on the environmental citizenship index decrease. For the social justice citizenship index the reciprocal equation for

percentage of minority students, environmentalism total, and community college were significant determinates for this index. All of these significant variables had positive estimated coefficients, however, for minority students it was the reciprocal equation that was significant. This illustrated how a variable can have a significant effect on the index score to a point, and then a saturation level is reached and the effects begin to decrease. The three determinants of the civic citizenship index were voting, major and recycling at home. Both voting and recycling at home had positive estimated coefficients.

Instrument Development Discussion

One of the biggest contributions of this study was the creation of the Global Citizenship Scale. As discussed in chapter four, factor analysis was used to reduce the original set of items within each index to a set of items statistically uncorrelated with each other. The remaining items within each index are shown in Table 5.1.

Not one of the measurement tools reviewed for this study successfully captured all three facets of global citizenship as defined in this study; as such, the Global Citizenship Scale used in this study has some unique advantages. Specifically, the Global Citizenship Scale avoids questions that are temporally bound, focuses on behaviors instead of attitudes, and avoids as much as possible biased language. For example, many of the existing measurement tools have become outdated because they rely on temporally bound questions, providing an outdated context for many younger individuals. Another improvement is that this scale focuses on the behaviors of participants, rather than their attitudes, whenever possible. Lastly, the Global Citizenship Scale was designed to minimize any language bias by relying on questions that have already been statistically

validated. Taken together, the Global Citizenship Scale used in this study, represents a clear improvement over the previous limited attempts at measuring this construct.

Table 5.1:
Items on Global Citizenship Scale

Environmental Citizenship	Social Justice Citizenship	Civic Citizenship
The earth has plenty of natural resources if we just learn to develop them. Plants and animals have as much right as humans to exist. Do you recycle at home? Do you conserve energy at home?	I place a high value on being deeply tolerant of others viewpoints. I feel comfortable getting to know people whom are from a different culture than me. For the most part events around the world do not affect me emotionally. Have you ever had a formal travel abroad educational experience?	How often do you watch the national news on television or listen to the national news on the radio? How often do you watch the national news on television or listen to the national news on the radio? I use the Internet for information? Are you a registered voter?

Findings by Research Questions

Demographic statistics provide a snapshot of what the current state of global citizenship looks like among graduate students enrolled in the Schools of Education at two Southern California universities. It is difficult to compare the results of this study to any sort of baseline because global citizenship and social returns to education are new lines of inquiry and global citizenship has not been quantitatively assessed. However, the data did show significant variation in overall global citizenship scores as well as in each of the three facets. For example, participants in this study scored from 32-59 on the 60-point Global Citizenship Scale. While for each individual 20-point index, scores ranged

from 6-20 for environmental citizenship, 7-20 for social justice citizenship, and 8-20 for civic citizenship.

Hierarchal regression analysis was able to predict 25% of the variation in global citizenship scores, suggesting that both demographic and institutional variables were important. Specifically, age (p= .01), population sustainability (p= .00), ethnic acquaintances (p= .00), and language (p= .01) were significant correlates of global citizenship. However, despite the focus on the overall index, the determinates of the three sub-indices provide a more nuanced look at the components of global citizenship and will now be discussed individually in the next section.

Current Literature and Study Results

In this section, the results of the study are contextualzed within the current literature. This discussion begins with the findings from the Global Citizenship Scale and is followed by the findings from each of the three indices. The discussion involving the significant determinants of each index is then followed by some of the lessons learned from the variables that were not significant in any of the regression models. However, reliance on the current literature for overall global citizenship is difficult because of the lack of empirical research on the construct.

As mentioned above, the majority of the literature on global citizenship is theoretical and very few attempts at empirical measurement of the construct have been attempted. Combined with the difficulty of measuring social returns to education few, if any, robust studies have been published that have successfully captured the determinants of global citizenship. Historically, the global citizenship literature has had a bias towards attitudes and curriculum (Davies &Evans, 2002; Levin, 2002; Pani, 1999; Steiner, 1992)

instead of behaviors. Although curriculum has proven significant (Wilke, 1995), unless global citizenship curriculum is required as general education at a campus, these interventions tend to only reach students that already have an environmental disposition (Winn, 2003).

Although gender was not a significant predictor for overall global citizenship scores in this research, others have found it to be significant in their research studies (Hunter, Hatch & Johnson, 2004; Raudesupp, 2001; Dietz et al., 1998; Durrenberger et al., 1993). However, Robbins, Francis and Elliot also found gender, age and ethnicity not to be significant factors in their global citizenship research on teachers (2002). Gender was however, significant in my environmentalism index, suggesting that women score higher than men in environmental citizenship and its contributing factors. The literature has shown that significant differences among ethnicities may exist in America. A new study using the NEP scale and focusing only on ethnicities cite significant differences in environmental beliefs and behaviors (Johnson, Bowker, & Cordell, 2004); however, this research study did not find significant differences in ethnicity for global citizenship scores, confirming the Robbins et al. study (2002).

The literature on environmental behavior and attitudes is massive. Environmental attitudes were a standard measurement for decades in this field (Brechin & Kempton, 1994; Dunlap & Mertig, 1995; Kidd & Lee, 1997; Rauwald & Moore, 2002). Through the research, we have learned that measuring attitudes often do not equate to behaviors (Gatersleben, Steg, & Vvlck, 2002) and that many potential determinants can be correlated with other factors such as income and education (Mc Mahon, 2002; Nuemayer, 2002). Educational levels have also been correlated with environmental attitudes and

behaviors (Mortenson, 1999; Weaver, 2002). However, because all of the participants in this study hold a minimum of a bachelor's degree, it is not surprising that no significant differences were identified between masters and doctoral students. In this study, gender and age were significant determinants of environmental citizenship in support of the literature. The significant institutional determinants of environmental citizenship carry the most valuable lessons. Both the percentage of international students on a campus and the percentage of minority students were determinants of social justice and environmental citizenship respectively. While the literature on social justice attitudes has shown that interactions with people who are from a different culture from one's own increases social justice attitudes (Astin, 1993; Gurin, 1997; Johnson & Lollar, 2002; Hulgus, Cox & Anderson, 2003), this research identified these types of interactions as significant determinants of social justice and environmental behaviors as well. Additionally, foreign language was a determinant of global and environmental citizenship. This had not been identified as a potential determinant in environmental citizenship previously.

The literature on social justice citizenship has shown inter-ethnic interactions to be positively correlated with social justice beliefs attitudes (Astin, 1993; Gurin, 1997; Johnson & Lollar, 2002; Hulgus, Cox & Anderson, 2003). In this study, the ethnic-interaction variable was significant in a non-linear manner for the social justice index. Specifically, the reciprocal of the percentage of minority students at school 2 revealed that as minority students increase, so does scores of the social justice index, to a point, then the effects lesson after a point of saturation has been reached. This may be explained by the theory of Hulgus et al. (2003), who argue that the longer the potential interaction opportunities are, the more beneficial they will be. Hence, participants presumably had a

more sustained opportunity at interaction at their previously attended school than they have had at their current school. Furthermore, this regression model for social justice citizenship fails to identify any of the other interaction variables (faculty or international students) as significant determinants of social justice citizenship. One explanation could be that the methodology of only including graduate students in the population is controlling for some of the variation that can be explained by socioeconomic and educational factors.

The literature on civic citizenship suggests that information literacy (Ellis, 2001; Davies & Evans, 2002) and internet usage (CyberStats, 1998) are positively correlated with civic attitudes and behavior. However in this study, these two variables were not correlated with civic citizenship. This may have been caused by behavioral questions being used in this research instead of attitudinal questions. Additionally, it could be explained by the homogeneous nature of the sampling only graduate students from Southern California. Because it would be expected that graduate students would have a relatively high level of information literacy, computer skills, and access to computers, these results are not surprising. For example, these variables may not have enough variation among this population to be able to generate any meaningful inference. While some have written of the theoretical importance of variables such as party affiliation and political literacy (Miles, 1990; Held, 1995 & 1996; Billig, 2000; Fiske, 2002), this research did not identify these variables as significant determinants of civic citizenship.

Policy and Leadership Implications

The previous sections have revealed that the results from this study identified six institutional and two demographic determinants of global citizenship and its facets. However, because institutions cannot manipulate an individual student's demographic profile, the policy discussions will be limited to the six institutional predictors. After this discussion, the policy implications for some of the more interesting non-significant variables will also be offered.

Three variables in this study were designed to measure inter-ethnic interactions on college campuses. Two of those--the percentage of minority students on campus and the percentage of international students on campus--were found to be statistically significant determinants of global citizenship, environmental, and social justice index scores. This suggests that it is important for colleges and universities to maintain and promote the level of ethnic diversity among its faculty, staff, and students as well as the international student presence on campus if they are interested in promoting global citizenship.

Not only does interacting with international students increase global citizenship scores significantly, so does an educational travel abroad experience for the participant. As such, an expansion of study abroad could greatly increase institutions abilities to promote global citizenship and its related factors. In 2005 this finding is extra meaningful, because as a result of the Patriot Act, travel by both American students and international students has been severely impacted. In an effort to promote better global citizens, policies pertaining to educational travel experiences should be evaluated in light of this new evidence.

The variable identifying the voting behaviors of participants was identified as a significant determinant of global citizenship attributes. If campuses are interested in promoting global citizenship, they must decide what actions they can take to increase voting actions in their respective campus communities. In the last few elections in America we have seen through the media that very deliberate efforts were made to discourage campuses from registering students to vote. This is a key area of policy that the results of this study may affect. Individual colleges and universities interested in global citizenship promotion should discuss and negotiate policies that will increase the voting behaviors in their communities. Registration drives, campus awareness initiatives, and as a requirement in pertinent courses voting behaviors can be implemented by individual institutions.

Language acquisition is a proven determinant of global citizenship and its factors. Although many colleges and universities have imposed mandatory language courses for students, a reassessment may be in order. For example, administrators may need to ask themselves--are we requiring enough? And could a cultural component attached to the language curriculum help even further? Given the importance of language acquisition in explaining variation in global citizenship scores it is unarguably an important policy factor for institutions that are committed to increasing global citizenship.

The variable indicating whether a participant has ever attended a community college was a significant determinant of the social justice citizenship index with a positive estimated coefficient. This is not surprising only because community colleges as a whole have been more vocal in the literature on their mission and policies in promoting better global citizens. In fact, results of this study do not support the idea that community

college students, score higher on all the indices in this study, because the only index that was affected by community college attendance was the social justice index.

In addition to discussing the significant predictors of global citizenship, a lot can be learned from the variables that were not found to be significant. For example, the fact that inclusion of global citizenship in an institution's mission statement was not a significant predictor of global citizenship suggests two important lessons for institutions of higher education. First, institutions that have included statements on global citizenship in their mission statements should be aware of assessment techniques, as they may be asked by accreditation committees to provide information supporting how their efforts have produced results. Second, is that simply including global citizenship in the mission statement is not adequate. In order to be effective at promoting global citizenship, the institution must follow through with policies that manipulate the identified determinants of the construct.

The participant's perception of whether their campus recycles or not also was not a significant determinant of global citizenship indices scores. This is a surprising result because this research, by design, expected that institutions work as role models for recycling. However, it may be possible that participants who notice a non-recycling campus may do so because they already have a more environmental orientation. However, if the sample had been drawn from the K-12 population the findings may have been different, because Oxfam (2003) found that schools do work as role models for recycling in their population of K-12 students.

Finally, the variable information literacy instruction was not a significant determinant of global citizenship scores in this study, despite being found to be important

by others (Ellis, 2001; Davies & Evans, 2002). One possible explanation is that because this population was composed of all graduate students, they already possessed a relatively high level of information literacy, providing little useable variation for modeling. As such, this potential determinant needs further examination in diverse samples.

Recommendations and Future Directions

The diverse findings of this research led to many suggestions for future research. However, results from this study only offer a first glance at identifying all the institutionally based determinants of the global citizenship indices. The fact remains that measuring the social returns to education is a difficult process, and only through years of research can a true and complete picture of how institutions affect the global citizenship scores can be constructed.

While some of the determinants of the global citizenship indices were identified, more clearly need to be found. The expansion of potential determinants through multiple research studies will benefit the knowledge base on the ways in which institutions can contribute to global citizenship. Researchers can also assess potential determinants of the indices and include them in future models in order to disentangle the many factors affecting global citizenship.

Attitudinal measurements of global citizenship and its facets should be approached with caution. Because the environmentalism literature has clearly reported that attitudes do not necessarily affect behaviors (Gatersleben, Steg, & Vvlek, 2002; Neumayer, 2002), researchers must be careful to use behavioral questions whenever possible to assess global citizenship. Similarly, unless campuses that use curriculum to promote global citizenship require all students to take courses in this area, efforts may

only reach those with a global aptitude already established. That leaves those who most need global citizenship curriculum without the necessary tools to function in a global society.

Other recommendations from this research include expanding the sample populations and increasing instrument usage in global citizenship research. In this study, using graduate students allowed for the added benefit of controlling for some of the effects from socioeconomic status and education level. However, it would be interesting to see how these results compare with studies that focus solely on undergraduates or a particular grade level. An important future direction for global citizenship research will be the re-use and refinement of the Global Citizenship Scale. While the results of this study are promising, refinement and re-use are essential in developing a more robust measurement tool. Also, the development of new instruments to measure the construct of global citizenship and it components will solidify the research body that is currently mostly theoretical. Validation of new instruments and comparison with the global citizenship indices presented here will advance the measurement of social benefits to education on a whole.

Finally, the use of mixed methodology to further the knowledge base is suggested. For example, the use of qualitative techniques prior to instrument construction might produce a more extensive and richer array of survey items. Or perhaps the use of follow-up interviews conducted after the results analyses might have shed light on any unusual or provocative findings. In any event, only through the introduction of more extensive research methods will researchers and institutions alike begin to better understand the

many ways that institutions can contribute to the development of global citizenship among their students.

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Appendix A

Categories of Global Citizenship

Concept Categorizations for 3 Components of Global Citizenship

Environmentalism	Social Justice	Civic Participation
environment (Steiner, 1992)	cultural acceptance (Steiner, 1992)	social responsibility (Pani, 1999)
greater consciousness of global conditions, (Levin, 2002)	recognizing and respecting the humanity of our fellow human (Nussbaum, 1998, p. 40).	economic orientation of the world (Levin, 2002)
global perspectives (Pani, 1999)	multicultural perspectives (Pani, 1999)	small-scale community activities (Davies & Evans, 2002)
aware of the wider world (Oxfam, 2003)	committed to multiculturalism (Levin, 2002)	and has a sense of their own role as a citizen (Oxfam, 2003)
is willing to act to make the world a more sustainable place (Oxfam, 2003)	respects and values diversity (Oxfam, 2003)	is willing to act to make the world a more equitable place (Oxfam, 2003)
pollution, global warming, natural resources, nuclear and industrial waste, common areas (oceans and air), and sustainable development (Winn, 2003)	is willing to act to make the world a more equitable place (Oxfam, 2003)	community involvement, political activism, and participation in free market systems (Winn, 2003)
achieve environmental protection (Selby & Pike, 2000)	poverty, human rights, and acceptance of religious and cultural differences (Winn, 2003)	further the cause of social justice (Selby & Pike, 2000)
a recognition of global systems and there connectedness (ACIEE, 1996)	tolerance towards social, political, and religious systems which differ from one's own (Selby & Pike, 2002)	accepting humanistic work for international peace in and interdependent world (Selby & Pike)

Appendix A continued

Environmentalism	Social Justice	Civic Participation
generate new knowledge about global studies (AACU, 2003)	a recognition of global systems and there connectedness (ACIEE, 1996)	general knowledge of history and world events (ACIEE, 1996)
environmental literacy, environmental concern, pro-nature beliefs, utilitarian beliefs, and attitudes towards nature (Raudesupp, 2001),	intercultural skills and direct experience (ACIEE, 1996)	greater civic engagement (AACU, 2003)
sustainable planet attitudes (Reid, 2002)	specialization in another language, culture or country (ACIIE, 1996)	knowledge of, debate about, and practice of democracy (AACU, 2003)
Protection from pollution and environmental degradation (Dean, 2001)	Greater social responsibility (AACU, 2003)	political literacy, voting participation, global issue knowledge, community involvement, and knowledge of social issues, information literacy, and global business issues (Davies & Evans, 2002; Holden, 2000; & Raudesupp, 2001).
	cultivate intercultural competencies (AACU, 2003)	

Appendix B

Cover Letter and Original Survey Instrument

Participant,

Thank you for agreeing to participate in this research project. You have been chosen for a participant because you are enrolled in a graduate degree program at a San Diego Region university. The accompanying survey has been developed aid in the assessment of post-secondary education's contributions to developing global citizens. The research literature has identified three important components of global citizenship, environmentalism, social justice and civic responsibility. The attached survey has four parts. The first asks demographic questions. Part 2 is on environmentalism, part 3 is on social justice, and part 4 is on civic involvement. There are no right or wrong answers on this survey. Please be honest in your answers and answer all questions on the survey. Incomplete surveys may not be able to be included in the sample. From these surveys additional data will be acquired from institutions that participants have previously attended. Then all the data will be analyzed to assess institutional factors that contribute to global citizenship. All data is confidential so please do not write your name on the survey. If you have any questions or would like a research summary upon completion of the project you may contact either Jade Winn jwinn@sandiego.edu or (619) 260-6885 or Dr. Fred Galloway galloway@sandiego.edu (619) 260-7435. Thank you for your time and participation

Survey # _____

Part 1

1. Gender (circle one) Male Female

2. Ethnicity _____

3. Age _____

4. What school do you currently attend? _____

5. What is your major? _____

6. What degree are you currently pursuing? (circle one)
   Masters
   Doctoral

7. Please list any institutions that have granted you a degree and the degree that you hold year received.

Institution	**Degree**	**Year**

8. Do you believe your current school recycles on campus? (circle one)
   No Yes Don't Know

9. Do you believe your previous school(s) recycled on campus? (circle one)
   No Yes Don't Know

Part 2

Do you agree or disagree that:

10. We are approaching the limit the number of people the earth can support (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

11. Humans are severely abusing the environment (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

12. The earth has plenty of natural resources if we just learn to develop them (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

13. Plants and animals have as much right as humans to exist (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

14. The so-called "ecological crisis" facing humankind has been greatly exaggerated (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

15. Humans will eventually learn enough about how nature works to control it (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

16. Do you recycle at home?

No Yes Don't Know

17. Do you attempt to conserve energy at home?

No Yes Don't Know

Part 3

18. I place a high value on being deeply tolerant of others viewpoints (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

19. I have friends of differing ethnic origins (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

20. I do not know too many people from different countries (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

21. I feel comfortable getting to know people whom are from a different culture than me (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

22. It is often hard to find things in common with people from another generation (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGRE
5	4	3	2	1

23. For the most part events around the world do not affect me emotionally (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

24. Do you speak any languages other than English?

No Yes Don't Know

25. Have you ever had a formal travel abroad educational experience?

No Yes Don't Know

Part 4

26. How often do you read the newspaper? (circle one)

ALMOST EVERYDAY	AT LEAST WEEKLY	AT LEAST MONTHLY	HARDLY EVER	NEVER
5	4	3	2	1

27. How often do you watch the national news on television or listen to the national news on the radio (circle one)

ALMOST EVERYDAY	AT LEAST WEEKLY	AT LEAST MONTHLY	HARDLY EVER	NEVER
5	4	3	2	1

28. Do you participate in any ongoing community service activity, for example, volunteering or working with a church or neighborhood association? (circle one)

No Yes Don't Know

29. Which of the major parties is in favor of a larger defense budget? (circle one)

Republican	Democratic	Other answer	Don't Know
4	3	2	1

30. Which of the two major parties is more conservative at the national level? (circle one)

Republican	Democratic	Other answer	Don't Know
4	3	2	1

31. I use the Internet for information? (circle one)

ALMOST EVERYDAY	AT LEAST WEEKLY	AT LEAST MONTHLY	HARDLY EVER	NEVER
5	4	3	2	1

32. Are you a registered voter? (circle one)

No Yes Don't Know

33. Do you vote in national elections ?(circle one)

No Yes Don't Know

34. Have you ever had instruction in information literacy?

No Yes Don't Know

Appendix C:

Schools and Institutional Data

	#	School	Rank	%MinStud	%MinFac	%Int	Type	CC	GCMS
	0	SDSU	1	51.3	20.7	2.9	0	0	0
*	1	USD	0	29.9	17.2	2.4	1	0	1
*	2	Chapman U	0	31.	13.3	2.8	1	0	1
	3	Southwestern	1	84.	33.7	.3	0	1	0
*	4	USF	0	54.4	16.9	6.6	1	0	1
*	5	George Washington U	0	32.	16.9	4.6	1	0	1
*	6	American University	0	31.2	16.2	7.3	1	0	1
	7	U of Nevada Reno	0	24.2	11.5	3.0	0	0	0
	8	Northern Arizona University	0	22.1	10.5	1.7	0	0	0
	9	CSUSM	0	46.4	40.6	2.7	0	0	1
	10	UCLA	1	63.7	37.9	3.4	0	0	0
	11	Palomar	1	40.4	18.9	1.4	0	1	0
*	12	Fordham U	0	40.5	10.9	1.2	1	0	0
	13	Cherlarlom							
	14	U of Pitt	0	17.4	15.8	.8	0	0	0
*	15	Pt. Loma	0	16.1	13.3	1.1	1	0	1
	16	CSU Chico	0	32.1	15.3	2.4	0	0	1
*	17	Stanford	1	50.7	16	5.3	1	0	
	18	Uof MICH Makato	0	31.6	6.1	4.7	0	0	1
	19	U of Northern Colorado	0	21.	10.8	.5	0	0	1
*	20	Drexel	0	34.1	16.5	5.2	1	0	0
*	21	Williamette	0	35.9	8.6	6.7	1	0	1
	22	Gloucester County	0	21.1	10.6	.6	0	1	0
	23	UCDavis	1	56.9	18.6	1.7	0	0	1
	24	Sonoma State	0	33.2	15.4	1.2	0	0	1
	25	USC	1	44.3	22.3	8.1	0	0	1
*	26	U of Redlands	0	41.6	18.2	.6	1	0	0
*	27	U of Pacific	0	50.5	14.2	2.6	1	0	0
	28	Ventura CC	1	50.7	29.8	1.1	0	1	1
*	29	Boston College	0	23.8	9.8	1.6	1	0	0
	30	U of Northern Iowa	0	5.6	10.4	1.8	0	0	0
*	31	University of Phoenix	0	55.5	17.7	4.6	1	0	0
*	32	St. Joseph's U	0	18.1	9.6	1.2	1	0	0

	33	UW Seattle	0	43.7	13.1	3.3	0	0	0
	34	Mississippi State	0	21.8	9.3	1.1	0	0	0
	35	U of Hawaii-Honolulu	1	69.5	32.6	1.	0	0	0
	36	Western U	0	58.3	30.	.6	0	0	0
*	37	Northwestern	0	36.2	14.5	4.9	1	0	0
	38	CSU Hayward	1	70.3	29.7	5.9	0	0	1
*	39	National U	0	47.1	21.3	1.4	1	0	1
*	40	Syracuse	0	29.3	15.2	2.5	1	0	0
	41	Macalaster	0	12.3	18.1	14.	1	0	1
*	42	American International	0	44.7	2.6	3.7	1	0	1
*	43	Albion College	0	11.4	8.4	1.3	1	0	0
	44	CSUFullerton	1	63.4	24.3	3.6	0	0	0
	45	CSUHumboldt	0	38.3	12.	.7	0	0	1
	46	U of Missouri – St Louis	0	21.1	15.4	1.7	0	0	0
	47	Pacific Luth	0	17.2	10.1	4.9	1	0	0
	48	Washington State	0	20.4	10.1	3.6	0	0	0
*	49	Emory	0	35.9	23.1	3.6	1	0	1
	50	UCSB	1	44.8	16.7	1.3	0	0	0
	51	Berry College	0	6.7	3.4	2.0	0	0	0
	52	UCI	1	73.3	28.4	2.6	0	0	0
	53	Penn State	1	13.1	10.5	2.4	0	0	0
	54	Temple U	1	40.	17.8	3.5	0	0	0
*	55	Agnes Scott College	0	35.8	13	0	1	0	0
	56	Kennesaw State	0	15.6	22.	2.9	0	0	1
	57	UCBerkeley	1	67.2	17.1	3.	0	0	0
	58	SoDakota State	0	8.7	6.8	.3	0	0	0
	59	Black Hills State	0	11.	5.3	.5	0	0	0
	60	Clemson	0	16.5	12.7	.8	0	0	1
	61	U of Arizona	1	30.2	13.6	3.5	0	0	1
	62	Citrus College	1	32.3	27.7	3.8	0	1	0
	63	Towson U	0	22.	11.9	2.7	0	0	0
	64	U of Wyoming	0	13.7	3.2	1.3	0	0	0
	65	National U of Singapore	0	na	na	na	0	0	0
	66	Eastern Mich U	0	27.5	16.9	1.6	0	0	0
	67	Western Mich U	0	8.6	13.5	3.2	0	0	0
	68	Utah State	0	6.6	7.3	2.6	0	0	0

	69	Snow College	0	4.8	2.7	1.9	0	1	0
*	70	Strayer U	0	63.2	39.5	4.2	1	0	0
*	71	U of West Bohemia	0	na	na	na	0	0	0
*	72	Mills College	0	48.6	20.9	3.8.	1	0	0
	73	CSUSB	1	62.2	22.5	3.1.	0	0	1
	74	Southern Utah State	0	5.4	5.9	.9	0	0	0
	75	UCSC	1	46.7	24.	.9	0	0	0
	76	Moorpark	0	36.8	18.2	.9	0	0	1
	77	College of San Mateo	0	57.1	25.	1.2	0	0	0
	78	Mesa CC	1	32.6	29.8	1.5	0	1	1
*	79	Mondragon	0	na	na	na	0	0	0
	80	Cleveland State	0	36.1	19.6	2.0	0	0	1
	81	East LA CC	1	92.7	48.6	1.7	0	1	0
	82	UCSD	1	61.7	19.	2.8	0	0	0
	83	CSULB	1	61.9	25.1	5.3	0	0	0
	84	U of Denver	0	15.8	11.2	4.4	1	0	1
	85	Notre Dame	0	16.9	6.6	3.6	1	0	0
	86	MidAmerican Naz	0	12.9	1.4	1.6	1	0	1
	87	Grossmont	0	40.2	22.6	3.7	0	1	1
	88	UC Riverside	1	76.2	23.3	2.1	0	0	0
	89	MiraCosta	0	37.1	17.3	2.	0	1	0
	90	CSU Northridge	1	66.5	27.6	4.5	0	0	1
	91	NYU	1	54.4	15.9	4.3	1	0	1
	92	UNM	1	49.5	17.5	1.1	0	0	0

*	93	Concordia –Irvine	0	28.2	9.6	1.5	1	0	0
*	94	Coleman	0	34.6	na	0	1	0	0
	95	Arizona State U	1	26.7	17.	3.1	0	0	0
	96	U of Hawaii Manoa	1	71.2	32.6	5.3	0	0	
	97	Aquinas College GR	0	9.4	6.3	.7	1	0	1
	98	U of Rhode Island	0	23.4	14.6	.2	0	0	0
*	99	Middlebury College	0	23.	11.8	8.3	1	0	0
*	100	University of St. Thomas	0	10.	9.6	1.1	1	0	0
*	101	Mount St Mary's	0	84.4	na	.1	1	0	1
	102	Riverside Com Col	1	57.9	25.3	.8	0	1	0
	103	Tsuka	0	na	na	na	na	0	0
	104	Loyola Marymount	0	45.6	23.	1.9	1	0	0
	105	Ithica Coll	0	9.6	8.8	3.1	1	0	1
	106	CSU Fresno	1	60.7	24.9	3.1	0	0	1
	107	Wesleyan U	0	31.2	16.4	6.3	1	0	0
	108	Marquette U	0	13.2	11.8	2.	1	0	0
	109	Otterbein Coll	0	9.7	10.8	2.5	1	0	0
	110	Bowling Green State	0	12.2	15.4	1.	0	0	0
	111	U of Denver	0	15.8	11.2	4.4	0	0	1
	112	Cal Poly Pomona	1	71.1	26.4	4.4	0	0	1
	113	Loyola U Chicago	0	39.9	16.9	2.4	1	0	0
	114	James Madison U	0	13.8	17.3	1	0	0	0
	115	U of Illinois Chic	1	54.7	25.5	1.3	0	0	0
	116	Inst. Of Amer. Indian	0	94.8	76.9	0	0	0	0
	117	Claremont Grad	0	38.5	19.9	15.7	1	0	1
	118	St Johns Seminary	0	60.4	23.5	12.5	1	0	0
	119	Harvard	0	40.6	20.2	5.4	1	0	0
	120	Trinity College	0	32.7	16.7	1.9	1	0	0
	121	Southern Illinois	1	28.9	14.2	3.0	0	0	1
	122	Old Dominion	1	36.4	15.6	2.5	0	0	0
	123	SJSU	1	62.2	27.	16.2	0	0	1
	124	State U. NY	0	39.9	12.3	.6	0	0	0
	125	U Mass	0	51.9	19.1	4.3	0	0	0

Appendix D

New Survey Instrument After Factor Analysis

Survey # _____

Part 1

1. Gender (circle one) Male Female

2. Ethnicity _____

3. Age _____

4. What school do you currently attend? _____

5. What is your major? _____

6. What degree are you currently pursuing? (circle one)
   Masters
   Doctoral

7. Please list any institutions that have granted you a degree and the degree that you hold year received.

Institution	**Degree**	**Year**

8. Do you believe your current school recycles on campus? (circle one)
   No Yes Don't Know

9. Do you believe your previous school(s) recycled on campus? (circle one)
   No Yes Don't Know

Part 2

Do you agree or disagree that:

10. The earth has plenty of natural resources if we just learn to develop them (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE

11. Plants and animals have as much right as humans to exist (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE

12. Do you recycle at home?
   No Yes Don't Know

13. Do you attempt to conserve energy at home?
   No Yes Don't Know

Part 3

14. I place a high value on being deeply tolerant of others viewpoints (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE

15. I feel comfortable getting to know people whom are from a different culture than me (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE

16. For the most part events around the world do not affect me emotionally (circle one)

STRONGLY AGREE	MILDLY AGREE	UNSURE	MILDLY DISAGREE	STRONGLY DISAGREE

17. Have you ever had a formal travel abroad educational experience?

No Yes Don't Know

Part 4

18. How often do you watch the national news on television or listen to the national news on the radio (circle one)

ALMOST EVERYDAY	AT LEAST WEEKLY	AT LEAST MONTHLY	HARDLY EVER	NEVER

19. Do you participate in any ongoing community service activity, for example, volunteering or working with a church or neighborhood association? (circle one)

No Yes Don't Know

20. I use the Internet for information? (circle one)

ALMOST EVERYDAY	AT LEAST WEEKLY	AT LEAST MONTHLY	HARDLY EVER	NEVER

21. Are you a registered voter? (circle one)

No Yes Non-eligible Don't Know

22. Have you ever had instruction in information literacy?

No Yes Don't Know

23. Do you vote in national elections?

No Yes Non-eligible Don't Know