A Proposal to Conduct a Study of
the Impact of Uranium Mining and Milling Operations
on Economic Well-being and Quality of Life
in Coles Hill, Virginia and the Surrounding Region

Submitted to the Virginia Coal and Energy Commission

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Contact Information:

James Koch, PhD
Board of Visitors Professor of Economics
and President Emeritus
Old Dominion University
Norfolk, VA 23529
(757) 683-3458
jkoch@odu.edu

Tancy Vandecar-Burdin, PhD
The Social Science Research Center
at Old Dominion University
Batten Arts and Letters, Room 2016
Norfolk, VA 23529-0076
757-683-3802
tvandeca@odu.edu
EXECUTIVE SUMMARY

Old Dominion University (ODU) has assembled a strong, multidisciplinary team in response to the Virginia Coal and Energy Commission’s request for proposals to conduct a socioeconomic study of the impact of uranium mining in Coles Hill and the surrounding region. This experienced research team harnesses the expertise of faculty from Old Dominion’s Social Science Research Center, School of Community and Environmental Health, the Regional Studies Institute, and the Economic Forecasting Project. Together, the research team members are well qualified to carry out a socioeconomic research study of the impacts, real or perceived, that uranium mining and milling operations will have on the quality of life and economic well-being in Pittsylvania County, Virginia.

Old Dominion’s research team will be coordinated by the Social Science Research Center and will use a variety of existing data sources to address economic development, government services and regulation, public health and environment, and social impacts of uranium mining. Primary data collected via focus groups and telephone interviews with residents and other stakeholders in the Coles Hill area will address the social impacts, as well as additional public health impacts. The four domains outlined in the RFP serve as the framework for ODU’s proposed socioeconomic study and a summary of the project’s major tasks is below:

- **Economic Development:** The study will provide specific estimates for each of the eight factors (jobs created and destroyed, locations, effects on retail sales, negative impacts on existing businesses, total spending, tax revenues, real estate values, impact of closure in 30+ years, etc.) specified in the sponsor’s request for proposals. These factors are all shaped by yet another primary variable: the price of uranium has historically been highly variable, and the benefits generated by uranium mining in Pittsylvania County will be critically determined by uranium price. Thus, Old Dominion’s comprehensive analysis will include uranium price, as well as other variables that are likely to affect the economic impact of the Coles Hill project such as the size of the uranium ore deposit and rate of uranium mining operations. The economic impact of these variables will be modeled for a range of scenarios to provide a more accurate projection of the benefits of uranium mining.

- **Government Services and Regulation:** Several different factors including anticipated regulatory costs, the impact upon public schools, and costs of remediation will be addressed by the study. Again, modeling will be used to determine a variety of scenarios and associated impacts on government and regulation.

- **Public Health and Environment:** The study will assess both public and environmental health and will include the collection of baseline conditions prior to mining operations, along with identification and evaluation of potential impacts. The magnitude of potential impacts will be determined and evaluated in terms of key elements, including public concern, professional and scientific judgment, disturbance/disruption of ecosystems, and degree of genitive impact on social values and quality of life.

- **Social Impacts:** The study will include the collection of primary data from a variety of community members and stakeholders to include both qualitative and quantitative data. A series of focus groups with various community groups and a telephone survey of the general public will be used to determine the social impacts of uranium mining.

The team will begin work on the project in January 2011 with a budget of $200,000.
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I. INTRODUCTION

In the late 1970’s, uranium ore was discovered in Virginia’s Pittsylvania County, sparking a high level of interest in uranium mining in that region. The Coles Hill site is believed to hold a large undeveloped uranium deposit but has remained untapped, as a moratorium on uranium mining has been in place in the Commonwealth of Virginia since 1982. At that time, the General Assembly’s Uranium Subcommittee and Uranium Administrative Group conducted a study of proposed mining plans, but extended the moratorium indefinitely. Today, increased uranium prices, along with increased costs of other energy sources have brought the issue of uranium mining before the State Legislature again and permission was given in 2007 for limited uranium exploration.

To inform decision-making on uranium mining in Virginia, the Virginia Coal and Energy Commission has commissioned two independent studies. The purpose of the first, conducted by the National Research Council of the National Academy of Sciences, is to “examine the scientific, technical, environmental, human health and safety, and regulatory aspects of uranium mining, milling, and processing as they relate to the Commonwealth of Virginia for the purpose of assisting the Commonwealth to determine whether uranium mining, milling, and processing can be undertaken in a manner that safeguards the environment, natural and historic resources, agricultural lands, and the health and well-being of its citizens” (VA Coal and Energy Commission, Uranium Subcommittee, Final Scope of Study, 2009). The second study will be a socioeconomic study of the impacts, whether real or perceived, that uranium mining and milling operations could have on quality of life and economic well-being of Coles Hill and the surrounding region.

This proposal is submitted in response to the Request for Proposals (RFP) for the second study, issued on September 30, 2010 by the Virginia Coal and Energy Commission. Old Dominion University (ODU) has assembled a strong, multidisciplinary team to conduct a socioeconomic study of the impact of uranium mining on the four socioeconomic domains outlined in the RFP. This seasoned team of ODU researchers harnesses the expertise of faculty from the Social Science Research Center, the School of Community and Environmental Health, the Regional Studies Institute, and the Economic Forecasting Project. Together, they are well qualified to carry out a comprehensive, socioeconomic research study of the impacts, real or perceived, that uranium mining and milling operations will have on the quality of life and economic well-being of the region surrounding Coles Hill in Pittsylvania County, Virginia.

II. PROJECT OVERVIEW

The research team at ODU is committed to providing an impartial investigation of the potential economic development, the costs of government services and regulation, and the impacts on public health, the environment, and quality of life related to uranium mining in the Coles Hill region. Both existing data and new data, collected firsthand from community stakeholders, will be used in the analysis. As shown in the following model, the planned
study addresses each of the four socioeconomic study domains specified in the Request for Proposals with appropriate methodology.

![Socioeconomic Study Domains – Impact of Uranium Mining](image)

Figure 1.

III. ORGANIZATIONAL CAPABILITY

A. History

*Old Dominion University*

Old Dominion University (ODU), in Norfolk, Virginia, is a state-assisted institution, established in 1930 as the Norfolk Division of The College of William and Mary. The institution gained its independence in 1962 and achieved university status in 1969. With its proximity to major military and aerospace facilities, ODU has become a leader in high technology applications. It is one of only 76 public universities with a Carnegie/Research Universities-High Research Activity designation, and offers 70 bachelors, 60 masters and 36 doctoral degree programs and 2 educational specialists degrees. Old Dominion’s eminent scholarship and teaching have gained national recognition for its programs. The university’s entrepreneurial approach to problem-solving shapes cutting-edge research and strategic partnerships with government, business, industry, and the arts.
Old Dominion’s commitment to research is evidenced by its total R&D expenditures, which amounted to $96.2 million in FY 2009. In fact, total R&D at ODU has almost quadrupled over the last ten years. According to the National Science Foundation, eighteen ODU programs are ranked amongst the top 100 of their respective national peers in terms of R&D expenditures. The university is ranked 61st in total R&D expenditures amongst institutions without affiliated medical schools, 89th in DOD research, and 50th in NASA research. In NIH funding, ODU has moved ahead 100 positions in six years.

To sustain its research growth and facilitate collaboration, ODU has developed Innovation Research Park @ODU, two new buildings that bring together the university’s intellectual capital, faculty and students with private-sector companies to pursue research, technology development and business-creation opportunities.

The Social Science Research Center
The Social Science Research Center (SSRC) was established in 1998 by the Office of the Dean of the College of Arts and Letters as a research center devoted to acquiring, analyzing, and reporting information on behavior, attitudes and social trends, and to serving as a resource to university faculty. Almost immediately, the SSRC began its ongoing relationship with the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services (now the Department of Behavioral Health and Developmental Services). Other Virginia agencies have also contracted with the SSRC, including the Virginia Department of Health, the Virginia Department of Transportation and the Office of the Inspector General. The SSRC has managed over 100 research, evaluation, and data collection projects since its inception.

B. Background

Old Dominion University has assembled a research team and developed a proposal to address the Virginia Coal and Energy Commission’s request for a socioeconomic study to determine what impacts, real or perceived, uranium mining and milling operations will have on the quality of life and economic well-being of the region surrounding Coles Hill in Pittsylvania County, Virginia. Members of the research team are aware of the Commonwealth’s moratorium on uranium mining and the renewed interest in exploring the impacts should the moratorium be fully lifted. The team is also aware of the variety of divergent and vested interests of various stakeholders surrounding the uranium mining issue. For example, mining industry interests may describe huge benefits from uranium mining, while environmental organizations typically argue that the projected economic and social costs associated with uranium mining overwhelm any economic benefits. ODU’s socioeconomic study will provide reliable impartial data that can be considered along with that of the National Research Council and the studies commissioned by the Danville Regional Foundation, and the City of Virginia Beach.
C. Experience

Multidisciplinary Research at Old Dominion University

At ODU, multidisciplinary research enjoys strong support from the Office of Research, as well as from university administrators at all levels. Collaborative research efforts are encouraged through two different Office of Research funding mechanisms: the Multidisciplinary Seed Funding Program and the Summer Experience Enhancing Collaborative Research program. These intramural programs were initiated five years ago as a means of fostering innovative multidisciplinary research. Together, these programs have now funded over fifty researchers and more than 130 different research projects.

Multidisciplinary research is also at the core of many of ODU’s Research Centers, including the Virginia Modeling, Analysis & Simulation Center (VMASC) and the Frank Reidy Research Center for Bioelectrics. VMASC brings together faculty from all of ODU’s colleges, Arts and Letters, Business and Public Administration, Education, Engineering and Technology, Health Sciences, and Sciences, to develop innovative applications of modeling and simulation technology. Bioelectrics combines research expertise from the colleges of Engineering and Technology, Health Sciences, and Sciences to increase knowledge and understanding of how intense, pulsed electromagnetic fields and cold ionized gases interact with biological systems and to apply this knowledge to diagnostic and therapeutic medicine, as well as environmental decontamination.

ODU’s experience with multidisciplinary projects provides a robust foundation for the proposed Socioeconomic Study of the Impact of Uranium Mining and Milling Operations on Economic Well-being and Quality of Life in Coles Hill, Virginia and the Surrounding Region. The research team is comprised of skilled investigators from the range of disciplines required for a comprehensive response to the Virginia Coal and Energy Commission’s Request for Proposals. ODU’s research team represents the experience of:

- The Social Science Research Center
  – College of Arts and Letters

- The School of Community and Environmental Health
  – College of Health Sciences

- The Regional Studies Institute and the Economic Forecasting Project
  – College of Business and Public Administration

The Social Science Research Center

The Social Science Research Center (SSRC) has significant expertise in a wide range of research methods and data collection, including mail surveys, telephone surveys, web surveys, household interviews, and focus groups, in addition to most conventional forms of data analysis. SSRC staff are skilled in all stages of research, including instrument design, project management, data collection, data auditing, data management, data analysis, technical report writing, and the development of multi-media report presentations.
The SSRC’s specialty is data collection and analysis for the social sciences and human service programs. All sizes of data collection efforts have been conducted, from small telephone surveys of less than 200 people, to larger mail surveys of thousands of families and individuals. The Social Science Research Center is committed to collaborative relationships with its customers to identify research or evaluation needs, and determine appropriate methods and tools within a given timeframe and budget restrictions. In addition to providing expert advice on design, data collection, and data analysis, the SSRC can advise its customers on how to interpret and employ results to improve programs or systems.

The SSRC is equipped with a telephone interview system (CATI). The CATI lab is equipped with 10 computers with Voxco Command Center™ software. The CATI system gives the SSRC the capability to conduct telephone interviews at the local and national level, contact several thousand telephone numbers per project, access data and results for a given interview at any point during the project, and transfer data to a variety of useable formats for data analysis. The SSRC has worked for several years with an outside vendor (Marketing Systems Group) who provides samples for random digit dial (RDD) telephone surveys. The SSRC also utilizes TELEform software and optical scanning capabilities to facilitate rapid, highly accurate entry of paper-based survey data into SPSS or Excel data files for analysis. Use of Inquisite web-based survey software also allows for data collection via Internet (web-based) surveys.

The SSRC has the capacity to:

- Design studies and conduct quasi-experimental research and surveys to examine critical policy and programmatic issues
- Utilize a variety of methodologies – document analysis, interviews, focus groups, participant observations, surveys, case studies
- Manage the logistics of both small and large-scale data collection efforts using a variety of techniques, as well as apply a variety of statistical procedures to analyze quantitative data
- Present project findings and recommendations in a variety of formats tailored to the informational needs of the target audience(s).

The School of Community and Environmental Health

The School of Community and Environmental Health, within ODU’s College of Health Sciences, seeks to improve the health status of individuals, groups and populations through teaching, research and service. “Health” results from the complex interaction of individual, environmental, and socio-cultural factors, and this principle is reflected in faculty research that is culturally competent, community based, and policy relevant.

Community and Environmental Health faculty have received extensive federal funding to conduct research in the areas of medical informatics and use of information to improve patient care, as well as in the areas of minority mental health and substance abuse. Other major research areas include: health effects of exposure to toxic substances in the
environment, adjustment of women in battered women's shelters, and the development of screening/intervention approaches to help dental practitioners identify eating disorders. Many Community and Environmental Health faculty members also serve on national and international review panels for agencies like the Centers for Disease Control and the National Institute of Health, in addition to regional and local government and other health-related organizations.

The Regional Studies Institute and the Economic Forecasting Project

The Regional Studies Institute, an affiliate of the ODU College of Business and Public Administration, conducts research and provides a forum for regional collaboration involving educational, business, and government organizations. The Regional Studies Institute also works closely with the college’s Economic Forecasting Project, and together, they have a wealth of experience in economic forecasting and research on quality of life measures.

ODU’s Regional Studies Institute is best known for its well-respected annual “State of the Region” report, produced under the supervision of Dr. James V. Koch, Board of Visitors Professor of Economics and ODU President Emeritus. The recently issued “State of the Region 2010,” the eleventh annual report, examines a wide array of Hampton Roads issues that impact quality of life, including the economy, commercial real estate, ports, public transportation, arts, tourism, entertainment, and politics. A wide range of topics have been analyzed in past “State of the Region” reports, including local industry (ship repair), traffic congestion, K-12 education, and the region’s relationships with neighboring counties in another state.

The Economic Forecasting Project issues the annual “Hampton Roads Yearly Forecast” and the “National Yearly Forecast” which garner attention from scholars, the business community and the general public. The Economic Forecasting Project also produces a quarterly forecast for the Hampton Roads region and conducts other studies, such as Tourism Economic Impact Studies for the City of Virginia Beach. The Economic Forecasting Project has proven experience with "input-output analysis," a technique that applies models of the local, regional and national economies to assess the future impact of specific events on economic activity.

IV. PROJECT STUDY PLAN

The SSRC will coordinate the research study of the impact of uranium mining in Pittsylvania County across the four domains (economic, government regulation, public health and environment, and social impacts), and will compile the findings into a single report to be submitted to the the Virginia Coal and Energy Commission at the end of the project. The SSRC will also develop and submit monthly progress reports to the Uranium Mining Subcommittee. Milestones will be tracked to ensure they are being met within project timelines. The four domains outlined in the RFP serve as the framework for the planned socioeconomic study, as described in section IV(D) Measures of Socioeconomic Impact.


**A. Major Assumptions**

1. Old Dominion University assumes that study funds in the amount of $200,000 will be available for a project start date of January 1, 2011.

2. Old Dominion University assumes that staff from the Virginia Center for Coal and Energy Research (VCCER), the Uranium Mining Subcommittee and/or the Virginia Coal and Energy Commission will provide general guidance and background information about the uranium mining project throughout the study period. Members of these agencies are referred to as “the sponsor” in the Project Timeline that follows.

3. Unless specified, the study area includes the Coles Hill area and Pittsylvania County. Additional areas for inclusion in the study may be negotiated.

**B. Project Timeline**

The ODU research team will conduct the study from January 2011 through November 2011, with delivery of the final report to the Virginia Coal and Energy Commission no later than December 1, 2011. Please see the Project Timeline for a list of project tasks and timeframes.

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<th>Project Timeline: JANUARY – NOVEMBER 2011</th>
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<td>Meet with the sponsor to finalize proposed stakeholder groups, work tasks and timelines.</td>
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<td>Develop and finalize focus group question protocols and identify stakeholder types to participate in focus groups.</td>
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<td>First Visit to Coles Hill and Pittsylvania County</td>
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<td>Begin scheduling focus groups and inviting focus group participants.</td>
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<td>Begin process to obtain necessary public health, environmental and census data.</td>
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<td>Obtain IRB approval to conduct study with human subject data.</td>
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<td>Purchase RIMS II Model and coefficients.</td>
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<td>Visits to Richmond, Virginia Tech, and other Universities to talk with regulators, experts, industry personnel, the Commission, etc.</td>
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<td>Conduct focus groups with various stakeholder groups in the Coles Hill area.</td>
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<td>Transcribe focus group tapes; develop themes and topic areas for general public telephone survey.</td>
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<td>Develop telephone survey instrument and meet with sponsor to review.</td>
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<td>Revise telephone survey instrument as needed.</td>
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C. Major Project Milestones

1. Meet with sponsor to finalize study plan and timeline.
2. Identify and begin process to obtain data from government agencies for the Environmental Impact Assessment and Public Health Assessment.
3. Identify stakeholder groups for focus groups and develop focus group protocol(s).
4. Schedule and conduct focus groups.
5. Analyze focus group data, public health data, census data, and environmental data.
6. Develop telephone survey instrument based on focus group data, information from health and environmental analyses, and input from the sponsor.
7. Conduct telephone interviews with general public.
8. Purchase RIMS model and coefficients.
9. Analyze modeling data and evaluate alternative scenarios.
10. Analyze telephone survey data and focus group data.
11. Expert panel review of applicable post-closure plans.
12. Present findings to sponsor and community.
13. Submit final report.

D. Measures of Socioeconomic Impact

1. Economic Development

The Virginia Coal and Energy Commission's RFP for a "Socioeconomic Study of the Impact of Uranium Mining" lists eight factors related to economic development that
will be addressed by the Old Dominion University (ODU) team’s research study. Specifically, the ODU research plan addresses the following issues:

a. The number and types of jobs created directly by the mining and milling operation and the associated payrolls.

b. The number, types, and geographic locations of jobs created indirectly by the mining and milling operation in all sectors including retail and wholesale trades, the construction industry, and government.

c. The number and types of all such jobs likely to be filled by current residents and those likely to be filled by outside workers.

d. The number and types of jobs that might be lost due to contraction or closure of existing businesses.

e. Revenue generated from spending and capital investment made directly and indirectly by the uranium mining and milling operation.

f. The impact on local and state tax revenues.

g. The impact on real estate values, land use potential, the housing market, and the construction industry, including any loss of value to those properties downstream or downwind from the mining operation.

h. The impact on both direct and indirect employment levels and revenue generation after the cessation of active mining and milling operations.

Another Economic Factor

In addition to the factors above, ODU’s study will consider the prospect that the economic impact of uranium mining in and around Coles Hill is likely to be highly variable over the 30 or more years when mining would occur. This is because the price of uranium itself is highly variable, even volatile, as shown in Figure 2.

**Figure 2.** Price of uranium (per pound), January 1998 – September 2011
The graph traces the "spot price" of U₃O₈ – uranium oxide, or U₃O₈ as it usually is labeled – over the past two decades. The "spot price" is the price that is charged for immediate delivery. The graph illustrates that the spot price of U₃O₈ has fluctuated between a low of about $10 per pound and to a high of about $140 per pound. At the time of this writing, the spot price is approximately $52 per pound.

The reality is that the price of uranium will critically determine the benefits generated by uranium mining in and around Coles Hill. Since the price of uranium is highly variable, the prospective economic benefits from uranium mining are also likely to be highly variable. At lower prices (for example, those of the 1990’s), uranium mining would be very difficult, if not impossible, to justify from an economic standpoint. At the higher prices that existed in 2008, uranium mining makes more economic sense.

Because the price of U₃O₈ (the most widely traded uranium-related commodity) is volatile, a realistic study of the economic benefits (and costs) of uranium must take this into account and estimate a rather wide band of possible outcomes. Given the history of U₃O₈ prices, it cannot be assumed that the price of uranium today will remain the same in one year, or even in ten years. Consider that in January 2006, the spot price of U₃O₈ was $37.50 per pound, but it rocketed to $136.00 by June 2007; it is now about $52. A credible forecast of economic impact must account for these possibilities.

**Use of the RIMS II Model**

The standard way to evaluate the economic impact of a project is to use "input-output analysis," a technique that relies on models of the local, regional and national economies to estimate the impact of a specific event (such as uranium) on economic activity. The three most common input-output models in use today are the IMPLAN 3.0, REMI, and RIMS-II. Of the these three, the RIMS-II model, which is maintained by the U.S. Department of Commerce's Bureau of Economic Analysis, is the most frequently used, and this study will rely on it primarily (though not exclusively) to generate estimates of the economic impact of uranium mining in Coles Hill and the surrounding region.

The study will provide specific estimates for each of the eight factors (jobs created and destroyed, locations, effects on retail sales, negative impacts on existing businesses, total spending, tax revenues, real estate values, impact of closure in 30+ years, etc.) specified in the Commission's RFP. These estimates will be generated on an annual basis for one to 10 years after mining begins and every five years thereafter.

Furthermore, while the primary focus will be upon Pittsylvania County, the economic impacts for all variables for Henry, Franklin, Bedford, Campbell and Halifax counties in Virginia, and Rockingham, Caswell and Person counties in North Carolina will be segregated to the extent that the magnitudes for these counties are economically significant.
**Variables to be Addressed by Modeling**

One of the most valuable aspects of the RIMS II model is that it allows simulation of a variety of scenarios. Therefore, ODU’s comprehensive analysis will include variables that are likely to affect the economic impact of the Coles Hill project.

For example, an obvious variable in the economic domain is the volatile price of uranium, described earlier. Thus, the ODU analysis will include the entire spectrum of U3O8 prices over the past 20 years (ranging from $10 to $140 per pound), as well as the current price, $52 per pound. This will be calculated for each of the eight factors specified by the Commission (IV.D.1.a-h).

- The ODU study will model U3O8 uranium prices per pound that range from $10 to $140, including the current price of $52 per pound.

Additionally, since it is not entirely clear how much uranium is present at Coles Hill, the study will provide estimates relating to economic impact for differing levels of total uranium production. Clearly, the economic impact will be larger if 119 million pounds of uranium ore (the highest published estimate) exist in and around Coles Hill than if only 50 million pounds are there. The models will be developed using at least three different levels of uranium ore deposits and three different levels of ore quality for each of these three levels of ore deposits. Low ore quality will of course reduce the economic value of the ore extracted.

- The ODU study will model at least three different sizes for the Coles Hill uranium deposits and will also model at least three different levels of quality for the ore.

Another issue that affects the economic impact of the project is the time sequence of uranium production. In terms of present value, 2.0 million pounds of uranium production in 2015 should have a much larger impact on decision making than 2.0 million pounds of uranium production in 2035. This would be true even if the price in 2035 were entirely predictable, which it is not. Hence, we will model at least three different scenarios (for example, 1.0 million pounds per year; 2.0 million pounds per year; 3.0 million pounds per year) with respect to how rapidly the uranium is extracted.

- The study will also model at least three different scenarios that relate to how rapidly the uranium will be mined over the next 30+ years.

The economic viability of uranium ore extraction in and around Coles Hill depends significantly on the cost of doing so. There are five major variable factors to consider here. First, the rates of increase for prices and wages over the 30+ year period are unknown. The Consumer Price Index and the Producer Price Index rates vary, as do annual wages and fringe benefits. These measures will be modeled using "low," "medium" and "high" estimates. Second, the cost of equipment, materials, machinery, etc. over the 30+ year period is likewise unknown. Once again, a range of possibilities exists and at least three different scenarios will be modeled. Third, based on experience at other U.S. uranium mining sites, "spin-off" costs associated with the...
mining process (including damage to environment, possible impact upon water supplies, etc.) can be considered. Fourth, if changes in U308 prices temporarily impact the financial viability of the operation, there will be costs associated with shutting down production and re-starting it. Fifth, the costs associated with the end of production, 30+ years in the future must also be taken into account. Those costs will depend on factors such as the contraction of population and businesses, and declining tax revenues, as well as clean-up and remediation expenses. ODU’s plan for the study addresses these five issues as follows:

- The study will model at least three different rates of increase for the Consumer Price Index, the Producer Price Index and for annual wage and compensation increases. Uranium can be extracted using several different methods (e.g., traditional mining versus in-situ leach mining), and each involves different equipment and labor costs, so separate estimates will be given for each technique.

- Based upon the experiences of other U.S. uranium mining projects, spin-off and environmental costs associated with the Coles Hill project will be estimated, along with indications of how those costs are likely to be spread over time.

- The study will provide estimates of the costs associated with shutting down and re-starting production over the next 30+ years if U308 prices continue to be volatile.

- The costs associated with terminating production after 30+ years will be estimated; these include population contraction, declining K-12 school populations, declining tax revenues, clean-up and remediation. The experience of states such as Colorado suggests that ground water restoration is challenging, so those costs will also be estimated.

ODU’s research plan for the impact of uranium mining on economic development is comprehensive and detailed. The study is broadened through the addition of uranium price as a critical element in forecasting economic development. Likewise the modeling of multiple scenarios allows consideration of additional variables that are potentially significant.

2. **Government Services and Regulation**

The Commission has identified several different factors to be addressed in this part of the study, including anticipated regulatory costs, the impact upon public schools, and costs of remediation. The Old Dominion University (ODU) research plan speaks to several aspects of these requirements in the previous section and will address the remaining elements as well:

- The local and state government costs for regulation and monitoring of mining, milling, tailings management, closure and aftercare, and any associated liabilities.

- The impact of increased use and costs for any infrastructure and services upgrade.

- The impact on public schools including funding and educational opportunities.
d. The local and state government costs for contingency planning and disaster preparedness.

e. A review of the potential costs to upstream and downstream localities resulting from the mining and milling operation.

f. A review of the potential costs and determination of the parties responsible for remediating any potential environmental damage.

g. A review of potential sources of funding to offset the costs identified above.

Regulatory, public service and remediation costs all will depend significantly upon how much uranium is mined, how it is mined, and what the quality of that uranium turns out to be. A wide range of possibilities exists; therefore, for example, a broad range of plausible school populations, regulatory expenditures, must be considered. Finally, the experience of other states with uranium mining is especially useful in this domain.

- The ODU study will model U308 uranium prices per pound that range from $10 to $140, including the current price of $52 per pound, in assessing regulatory, remediation and public service costs such as public education, law enforcement, sanitation, transportation, and social services. The experiences of other states will be considered, as well as conditions specific to the Coles Hill and Commonwealth of Virginia situations.

- The ODU study will model at least three different sizes for the Coles Hill uranium deposits and will also model at least three different levels of quality for the ore in assessing regulatory, remediation and public service costs, such as public education, law enforcement, sanitation, transportation, and social services. The experiences of other states will be considered.

- The ODU study will also model at least three different scenarios that relate to how rapidly the uranium will be mined over the next 30+ years in assessing regulatory, remediation and public service costs such as public education, law enforcement, sanitation, transportation, and social services. The experiences of other states will be considered.

- The study will model at least three different rates of increase for the Consumer Price Index, the Producer Price Index and for annual wage and compensation increases. Uranium can be extracted using several different methods (e.g., traditional mining versus in-situ leach mining), and each involves different equipment and labor costs, so separate estimates will be given for each technique in order to assess the assessing regulatory, remediation and public service costs such as public education, law enforcement, sanitation, and transportation and social services.

The government’s ability to cope with the public costs connected to uranium mining depends significantly upon the tax structure associated with uranium mining. Here
too, there is a wide variety of possibilities, including the creation of a sovereign wealth fund or similar account designed to build the financial resources necessary to deal with costs related to uranium mining.

Tax collections (income, sales, property, real estate, etc.) will be modeled over the anticipated 30+ years of production and also examine the alternative of a sovereign wealth fund or account that would accumulate financial resources to deal with expenditures that likely will occur after mining has ceased.

3. **Public Health and Environment**¹

The Old Dominion University (ODU) team’s research will address the public health and environmental impacts of uranium mining on the region as follows:

a. The costs of health care and illness due to potential negative impacts from the uranium mining and milling operation.

b. A review of the quality of life impacts from health risks attributable to the mining and milling operation for employees and residents.

c. The impact on quality of life from detrimental environmental consequences.

d. The impact on natural landscapes, scenic appeal, recreation, and tourism, including wildlife and hunting, fishing, boating, and places of historical interest.

e. A review of any environmental justice impacts.

f. A review of post-closure procedures to ensure public health and safety.

The research plan includes assessments of both public and environmental health. The environmental impact assessment will include the collection of baseline environmental conditions before any mining operations are initiated, along with identification and evaluation of potential environmental impacts.

**Characterization of baseline environmental conditions**

Baseline studies will characterize and document the existing environmental conditions, and data collection will focus on the environmental elements most likely to be affected by mining and milling. The first section of the environmental assessment will include the regional and local geology and geography, leading to a description of the local terrestrial habitat. Descriptions of climate, surface water hydrology, hydrogeology, soil, and water quality, and natural radiological conditions are integral to the baseline document. An assessment of existing data for the areas in immediate proximity to the proposed mining site will also include measures of radon concentrations in the indoor air of homes, radon and gross alpha emitters in drinking water derived from wells, and gross alpha emitters in surface water. This data will be

obtained from the Virginia Department of Environmental Quality (VA DEQ) and the US Environmental Protection Agency (US EPA). Descriptions of resource use, including land use, agriculture, livestock, wildlife harvesting, fishing, tourism will also be developed as part of the investigation. Further, a description of the socio-economic and environmental elements affecting the inhabitants – humans, animals and plants of the impacted areas – will be included. Finally, the description of baseline conditions will also cover the nature of human livelihood and culture.

**Identification of potential environmental impacts**

The purpose of impact evaluation is to assign relative significance to changes observed in baseline measurements that may be associated with mining and milling activity and methods. In addition, baseline data and observations will be used to determine a hierarchy of impacts to be avoided, mitigated or compensated.

The magnitude of the potential impacts will be determined and predictions will be made regarding future potential impacts. Next, the level of impact will be evaluated in terms of its relative value. The key elements for evaluating environmental impact significance include level of public concern, professional and scientific judgment, disturbance/disruption of ecosystems and degree of genitive impact on social values and quality of life. The US EPA Cost of Illness and Injury (US EPA, 2010) handbook will be used to develop estimates of potential costs associated with adverse impacts on the community.

The planned public health assessment includes three phases: data collection and evaluation, assessment of exposure pathway, and an assessment of impacts on quality of life.

**Data collection and evaluation**

This study employs a mixed methods approach, incorporating information from document reviews and data from focus groups and a survey of the general public. For document reviews, information will be gathered from published studies in the scientific literature, government publications and other existing sources. Each document will be analyzed and reviewed for key words that provide evidence of health impacts considered. Determinants of health associated with uranium and uranium mining will be identified; these include education, childhood development, health services, personal health practices, income and social status, physical environments, and employment and working conditions. Data will also be collected from the Virginia Health Information patient level database (www.vhi.org) to assess the burden of existing disease in the geographic area and communities located in close proximity to the proposed mining site. As part of the assessment, the current incidence of silicosis and kidney disease in the community will be noted to ensure that increases attributable to mining are quickly detected and services rendered to address potential adverse health outcomes.

Other information will be collected via surveys from focus groups and stakeholder groups, including health care professionals, miners, the community nearby the mining
site, and the general public. Questions regarding public health will be incorporated into the focus groups and telephone survey to be discussed in the social impacts section below.

**Assessment of exposure pathways**

Human exposure pathways to be assessed include air, drinking water, soil and food through direct contact with air containing uranium particulates, consumption of vegetables contaminated with deposited particles, consumption of drinking water contaminated with uranium, consumption of vegetables grown in contaminated soil, and inhalation of re-suspended dust. Inclusion of potential impacts from radon exposure will also be assessed. As part of the data collection process for this project, the VA DEQ air and water quality permit system as well as the US EPA Toxics Release Inventory (available as a public access dataset) will be queried to determine the location and number of industrial facilities with potential discharges to the environment in the local community of the proposed mining site.

**Impact on quality of life assessment**

Assessment of quality of life will be done via a household telephone survey of the general public to be described further in the social impacts section below. The survey will assess and quantify the value an individual places on experiences such as type of health care, recreation, education, and social impact. This is important because changes in quality of life can have a significant impact on the community and could potentially alter the labor supply in the area.

**Assessment of Environmental Justice Impacts**

A GIS map will be created using ArcGIS to locate the identified industrial facilities, the potential mining operation, and the housing density within census tracts in the immediate vicinity of the mining operation. Information on the economic and demographic characteristics of these census tracts is readily available through the US Census Bureau and will be incorporated in the GIS map layers. The amount and quantity of registered discharges in the Toxics Release Inventory of the US EPA for each affected census tract will be compared to census tracts of high socio-economic status to determine if there is an added cumulative burden expected for the communities affected by the proposed mining operation.

**Review of Post Closure Procedures**

Post closure plans for the mining operation will be reviewed by an expert panel convened for that purpose. Panel members will be drawn from academia, government, and private industry and will provide comments on any proposed post-closure plans. These comments will then be forwarded to the governing authority for the mining operation and the appropriate regulatory authorities so that procedures can be addressed with health and safety in mind.
4. **Social Impacts**

*Tasks and Methodology*

Old Dominion University’s Social Science Research Center (SSRC) will address the social impacts of uranium mining on the region through the collection of primary data from a variety of community members and stakeholders. This proposed approach allows for the collection of both qualitative and quantitative data. Involving community stakeholders, such as business owners, educators, and the general public will provide valuable insight into the pressing issues for the region regarding the possibility of uranium mining. The study will also be informed by input from other project team members studying the economic development and health impacts. Further, Dr. Gary Schafran, who is serving on the expert panel to oversee the Virginia Beach study of water quality impacts of uranium mining, is also available to provide additional information and insight into the socioeconomic study. The SSRC will also work with local media outlets to publicize the study and encourage citizen participation.

A series of focus groups with various community groups and a telephone survey of the general public in Pittsylvania County will be used to determine:

a. The effects on internal and external image of the region, i.e., the belief that area remains a safe place to live, work and invest.

b. Public confidence in the company to control adverse effects and the ability of government to properly regulate such effects.

c. The impacts on private schools and local institutions.

d. The impact on aesthetics and overall quality of life issues.

Data and information collected from the focus groups (qualitative) will inform a telephone survey (quantitative) of the general public in Pittsylvania County about the proposed uranium mining project. Focus groups are useful for collecting a wide range of information in a short amount of time, exploring topics/issues as they come up, and addressing complex behaviors and motivations, and sensitive and difficult topics. They are useful for exploring a problem, issue or set of questions in-depth with a small group or several small groups of people. The feedback generated during the focus groups will guide the development of the telephone survey for the general public. The telephone survey will allow for generalizations of public perception regarding the issue of uranium mining in the study area.

All of the information collected from focus groups and the telephone interviews will be used to determine what impacts, real or perceived, uranium mining and milling operations will have on the quality of life and economic well-being of the region surrounding Coles Hill. This approach engages stakeholders who will identify issues and provide valuable insight into the study process. Ultimately the success of the proposed study in assessing social impacts will rely on information that people closest to the issues bring to the study. This approach also ensures that the findings of the
study represent the views, perceptions, and attitudes of the community rather than those of the investigators.

The SSRC will develop focus group question protocols in collaboration with other research team members and will identify appropriate stakeholder groups to target for the focus group discussions. Given that focus group participants are expressing their thoughts and opinions in a small group environment, it is beneficial to have several separate groups that are homogenous so that group members feel comfortable and participate with candor. These groups may include: educators, economic development and business leaders, health services, environmental groups (e.g., Piedmont Environmental Council), farmers, other land owners, and the general public.

After the stakeholder groups are identified and the question protocols finalized, SSRC staff will begin to schedule focus groups at times and locations that are convenient for the given stakeholder group. SSRC staff will contact individuals to participate via mail and telephone. Two SSRC staff will moderate the focus groups and audio tape the discussion provided there are no objections from group members. Hand-written notes will also be taken during the focus group discussions and analyzed along with the focus transcript.

For the telephone survey of the general public in the study region, the SSRC will utilize a random sample of land-line telephone numbers generated by and purchased from Marketing Systems Group (MSG) to obtain up to 600 completed interviews in the study area (Pittsylvania County). With a 2000 population of 62,750 persons\(^2\), a sample size of 400 is sufficient for survey results to be representative of the study area (with a 95% confidence level with a +/-5% confidence interval\(^3\)). However, the SSRC will oversample the town of Chatham and areas immediately surrounding the proposed uranium mining site. The survey will be programmed into Command Center\textsuperscript{TM} computer-assisted telephone interviewing (CATI) software and tested by SSRC staff. Calls will begin once the survey instrument and sampling stratification plan have been approved by the sponsor. Calls will take place mainly in the evening hours (Monday through Friday, 4:30pm to 8:30pm). However, daytime and weekend calls may also take place.

Geographical data can be provided by the sampling company for random digit dial (RDD) landline sample and will be appended to each survey case, along with the telephone number. Up to 10 telephone interviewers per shift will make telephone calls under the direct supervision of at least one CATI supervisor. It is assumed that the survey will take no longer than 15 minutes on average to complete. Not all call attempts will result in a completed survey, and time must be allotted for callback attempts and refusal conversion. The SSRC also routinely calls back telephone numbers of respondents who politely refuse to complete the survey (e.g., “no thank you, I’m not interested”). These “soft” refusal callbacks are scheduled at least three


\(^3\) http://www.surveysystem.com/sscale.htm
days from the initial refusal. If a respondent at a given number refuses a second time, that number is removed from the calling pool. If a respondent refuses in an angry or hostile manner, the telephone number is coded as a “hard refusal” and removed from the calling pool.

Telephone numbers will be removed from the calling pool when a completed interview is obtained; when it is determined that a phone number is no longer in service or is not a residential number; when a respondent at a given number refuses twice; or when a telephone number has been called 5 times (whichever occurs first). Recent research on telephone survey methodology indicates that leaving a voice message can improve response rates\(^4\). Telephone messages inform the household that interviewers are calling for a legitimate research purpose versus telemarketing. Therefore, SSRC interviewers will leave a very brief telephone message the first time an answering machine is reached, letting the household know the purpose of the survey and that an interviewer will call again later.

At the conclusion of the survey period, SSRC staff will extract the data file from Command Center, remove telephone numbers and any other identifying information, and save the data in electronic format (an Excel-compatible file or a fully labeled SPSS data file) for analysis.

**Analysis**

Standard qualitative data analysis techniques will be applied to the focus group data: a grounded theory approach, which requires the researcher to let themes emerge from the data rather than analyzing the data with a specific theoretical framework in mind, will be used. Grounded theory requires various levels of coding or organizing the data, and each level moves from very general groupings to more specific groupings. Through this analysis, themes that can be used to summarize the data will emerge, identifying the most salient issues for participants. The general notes taken during the focus group session will also be organized by question and by general themes for each focus group. The confidentiality of the information shared by individual focus group participants will be maintained and the feedback provided will be summarized in aggregate form only. After the group discussions have been transcribed, audio tapes will be destroyed.

The quantitative analysis of the telephone survey data will be conducted with appropriate weights developed and applied to correct for sampling errors and ensure that the results are representative of the resident population of the region. Two analytical approaches will be used to assess the social, economic, and health impacts of the proposed mining and milling. SSRC staff will first generate frequency tables by impact domains, such as economic/health/social impact, aesthetics, and overall quality of life. Detailed frequency tables allow assessment of the extent to which

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participants are satisfied with current conditions (i.e., before the proposed mining and milling) and concerned with potential impacts of mining and milling. Chi-squared test of single distribution will be employed to determine whether the satisfaction and concerns are statistically significant and beyond the margins of errors.

The second approach in the quantitative analysis will compare the participants’ views of current social, economic, environmental, and health conditions with their beliefs about will happen after the development of the proposed mining and milling. The differences observed will help to quantify the potential impact in each impact domain. Chi-squared test of differences will be conducted to see if the impact in each domain (i.e., measured by the before-after differences) is statistically significant. In addition, cross-tabulation analysis will be conducted to ascertain if perceived impact varies by participant socioeconomic characteristics and/or locations of the respondents’/stakeholders’ residence or business.

V. PROJECT PERSONNEL

Old Dominion University’s research team is comprised of experts in each of this study’s domains: Economic Development; Government Services and Regulation; Public Health and Environment; and Social Impacts. The team members’ expertise and contributions to the study are described below. Please see Appendix A for resumes (curriculum vita) for all project personnel.

1. Economic Development and Government Services and Regulation Study Domains

The economic and government services components of the study will be completed by two experienced researchers who frequently work together: James V. Koch, Board of Visitors Professor of Economics and Vinod B. Agarwal, Professor of Economics, both from the Department of Economics at Old Dominion University. Professors Koch and Agarwal have completed dozens of similar economic impact studies. Two recent examples of their work are attached in Appendix C – the 2010 State of the Region report for Hampton Roads (www.odu.edu/forecasting) and the 2009 Virginia Beach Tourism Economic Impact Study.

James Koch, PhD

Dr. Koch will serve as one of the project’s principal investigators. In addition to the work mentioned above, Dr. Koch has consulted for more almost 100 attorneys, governments, business firms and universities and has significant experience in the mining and steel making industries. He has also published ten books and approximately 100 journal articles, in addition to approximately a dozen monographs. Recently, he completed economic impact studies of Fortune 500 firms such as Amerigroup and WellCare Health Plans, as well as a variety of other organizations, such as Bon Secours Health System, Cox Communications and Eastern Virginia Medical School.
Dr. Koch will be primarily responsible for meeting with Pittsylvania County citizens concerning the economic and regulatory impact of uranium mining and in assessing the benefits and costs of regulatory policies.

Vinod Agarwal, PhD
Dr. Agarwal has been a member of the Governor's Revenue Forecasting Committee and is a principal of the highly regarded Old Dominion University economic forecasting project, which models both the Hampton Roads region and the Commonwealth of Virginia. He has completed numerous economic impact studies dealing with tourism and also has authored economic impact studies measuring the benefits and costs of the Port of Virginia, LNG natural gas, and amateur athletics on Virginia and Hampton Roads.

Dr. Agarwal will be primarily responsible for RIMS II economic modeling and/or simulating the economic scenarios outlined in the proposal.

2. Public Health and Environment Domain

Anna Jeng, ScD
Dr. Jeng is an Associate Professor in the Community and Environmental Health Program at Dominion University. She is also the Graduate Program Director of the Master Program in Environmental Health at Old Dominion. She has served as principal investigator or co-investigator on more than 10 research projects covering a variety of environmental health issues including cellular toxicity of metal oxide nanoparticles in mammalian cells and biomarkers using genomic analysis for Pfiesteria toxic exposure. She has published articles and other works regarding indicator organisms of water quality in Lake Pontchartrain, transport of indicator organisms from stormwater runoff into brackish recreational waters, and automobiles, ambient air quality and health.

Dr. Jeng will be responsible for the data collection, analysis and other tasks associated with the environmental impact assessment.

Jim Blando, PhD
Dr. Blando is an Assistant Professor in the School of Community and Environmental Health at Old Dominion University. He was a research scientist at the New Jersey Department of Health and Senior Services in the Division of Epidemiology, Environmental, and Occupational Health from 2001 to 2010. He has published articles and other works regarding neurological illness associated with occupational exposure to the Solvent 1-Bromopropane, the current lead use, handling, hygiene, and contaminant controls among New Jersey industries, and KI prophylaxis knowledge and nuclear emergency preparedness.

Dr. Blando will be responsible for the data collection, analysis and other tasks associated with the public health assessment.
3. **Social Impacts Domain**

   Senior staff at the Social Science Research Center (SSRC) at Old Dominion University have a combined total of over 30 years experience in social science evaluation and survey research.

   **Xiushi Yang, PhD**

   Dr. Yang is the director of the SSRC as well as a faculty member in the Department of Sociology and Criminal Justice. A social demographer, Dr Yang has extensive survey research experience and has expertise in social science and behavioral research involving both population-based sampling and special sampling of hard to reach populations (e.g., migrants). His research has focused on the impact of migration and socioeconomic changes on reproductive and health behaviors in China. More recently, his research has also focused on migration, gender, and health behaviors. Since joining the ODU faculty in 1993, Dr. Yang has been the principal investigator for several National Institutes of Health funded projects. Most recently, he is the principal investigator of a health behavioral intervention study among female entertainment workers in Shanghai (funded by NIH/NICHD) and a co-investigator of a HIV and alcohol risk reduction among female sex workers in Guangxi, China (funded by NIH/NIAAA). Dr. Yang received his B.S. in economic geography from Zhejiang University in China in 1982 and M.A. and Ph.D. in Sociology with a concentration in population studies from Brown University Department of Sociology/Population Studies and Training Center in 1991 and postdoctoral training in population studies at the Carolina Population Center, University of North Carolina at Chapel Hill from 1991 to 1993. He is currently serving as a standing member of the Behavioral and Social Science Approaches to Preventing HIV/AIDS Study Section (BSPH) at the National Institutes of Health.

   Dr. Yang will be responsible for overseeing survey design and data analysis related to the social impacts of the proposed mining operation. He will also contribute in the areas of survey instrument development, sampling, quality control of data collection, and statistical modeling of the health and social impacts of the proposed mining operation.

   **Tancy Vandecar-Burdin, PhD**

   Dr. Vandecar-Burdin has served as the Associate Director of the Social Science Research Center since its inception. In collaboration with the SSRC’s director, she is responsible for the day-to-day management of the SSRC’s operations, as well as serving as project manager for a number of projects. Dr. Vandecar-Burdin’s management responsibilities have included supervision of research and support staff, hiring and training data collectors, planning projects, developing surveys and interview protocols and administration procedures, managing large-scale telephone and mail surveys, monitoring the work of subcontractors, building cooperative relationships with clients, managing communications with government project officers, supervising data collection activities, and managing project timelines and budgets. She has managed most of the regional and statewide projects conducted by the SSRC, and these have included: multi-site data
collection efforts; statewide and community surveys; political polls; and statewide and
multi-site process and outcome evaluations.

Under the direct supervision of Dr. Vandecar-Burdin, the SSRC has been a resource to
both the university’s research faculty and state and local government, civic, and social
service agencies that require assistance with project management and data collection and
analysis tasks. She is also responsible for managing the SSRC’s computer-assisted
telephone interviewing (CATI) lab, and has managed large-scale telephone, mail, and
electronic survey projects under contract to government, civic, and social service
agencies in and around Virginia and the Tidewater area. Dr. Vandecar-Burdin earned her
Bachelor of Science in Criminal Justice with a minor in Psychology from Russell Sage
College in Troy, NY. She received her Master of Arts in Applied Sociology with a
certificate in Criminal Justice from Old Dominion University as well as a PhD in Public
Administration and Urban Policy.

Dr. Vandecar-Burdin will serve as the other principal investigator for the project and will
be responsible for coordinating the study’s four components (economic, government
regulation, health and social) and compiling the findings into a single report to be
submitted to the sponsor at the end of the project. She will also develop and submit
monthly progress reports to the Uranium Mining Subcommittee as well as track project
milestones to ensure they are being met within project timelines.

Dr. Vandecar-Burdin will provide day-to-day management of all project tasks, deadlines,
and deliverables. She will provide technical oversight and quality assurance for all
deliverables; manage communications with the sponsor as appropriate; supervise data
collection and data analysis tasks for the social impact portion of the project; and prepare
reports and presentations. She will supervise the work of the project research assistant(s)
on a day-to-day basis. As one of the principal investigators, Dr. Vandecar-Burdin, will
develop the focus group and telephone interview protocols along with other project staff
and stakeholders, facilitate the community stakeholder focus groups, provide oversight to
the telephone interview staff, and assist with analyzing and compiling the data from the
focus groups and telephone surveys.

Wendi Wilson-John
Ms. Wilson-John is a Project Coordinator for the Social Science Research Center. She is
responsible for assisting with the management of several SSRC data collection and
evaluation projects. Her responsibilities have included the day-to-day management of the
development of Virginia's Integrated Data System for Early Intervention and overseeing
Virginia's General Supervision Enhancement Grant for Part C in conjunction with the
University of Kentucky. Ms. Wilson-John managed and coordinated multiple grant
activities, which included designing and developing outcome indicators for children and
families and assisting in the implementation of the outcome indicator system for the state
of Virginia. She also coordinated and conducted multiple statewide trainings across
Virginia. Ms. Wilson-John’s previous career experience includes working for the
National Highway Traffic Safety Administration as a Highway Safety Specialist in
Washington, DC. She was also employed for the State of Maryland's Governor's Highway Safety Office as a Data Analyst and Evaluation Coordinator. Ms. Wilson-John earned her Bachelor of Science in Psychology with a minor in Criminal Justice in 1997 from Old Dominion University. She earned her Master of Arts in Experimental Psychology in 1999 from Towson University in Towson, Maryland. She has been with the SSRC since 2001.

Ms. Wilson-John will provide overall project support including: conducting literature reviews and other searches regarding uranium mining; assisting with focus group/interview scheduling and moderation; transcribing the focus groups, providing feedback about the telephone survey questions and their appropriateness for telephone administration; and developing charts and tables for reports and presentations; and data entry and assistance with analysis as needed.
VI. **BUDGET**

The budget for the proposed study is listed below by major category:

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<th>Category</th>
<th>Amount</th>
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<td>Personnel</td>
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**TOTAL DIRECT COSTS:** $158,730

**ALLOWABLE OFF-CAMPUS INDIRECT COSTS (at 26%):** $41,270

**TOTAL PROJECT BUDGET:** $200,000
APPENDICES

APPENDIX A: RESUMES OF PROJECT PERSONNEL

APPENDIX B: REFERENCE LIST OF PREVIOUS CLIENTS

APPENDIX C: EXAMPLES OF PREVIOUS COMPARABLE WORK
APPENDIX A:
RESUMES OF PROJECT PERSONNEL

- James V. Koch, Ph.D.
- Vinod B. Agarwal, Ph.D.
- James D. Blando, Ph.D.
- Hueiwang Anna Jeng, Sc.D.
- Xiushi Yang, Ph.D.
- Tancy Vandecar-Burdin, Ph.D.
- Wendi M. Wilson-John, M.A.
CURRICULUM VITAE

JAMES V. KOCH

Board of Visitors Professor of Economics
and President Emeritus

Old Dominion University
Norfolk, VA 23529

(757) 683-3458
jkoch@odu.edu

EDUCATION:

B.A., Illinois State University (1964)
Ph.D., Northwestern University (1968); Dissertation: The Demand Functions of the Household Sector for Liquid Financial Wealth: An Econometric Study
Ph.D. (honorary), Yeungnam University, Taegu, Korea (1984)
Ph.D. (honorary), Toyo University, Tokyo, Japan (1987)
Ph.D. (honorary), Kyushu Institute of Technology, Kitakyushu, Japan (1995)
Doctor of Humane Letters (honorary), Illinois State University (2009)

APPOINTMENTS:

Board of Visitors Professor of Economics and President Emeritus, Old Dominion University, Hampton Roads, VA, July, 2001-
President and Professor of Economics, Old Dominion University, Hampton Roads, VA, July, 1990-2001
President and Professor of Economics, University of Montana, Missoula, MT, September, 1986-June, 1990
Provost and Vice President for Academic Affairs, Professor of Economics, Ball State University, Muncie, IN, August, 1980-August, 1986.
Dean, Faculty of Arts and Sciences and Professor of Economics, Rhode Island College, Providence, RI, May, 1978-August, 1980.
Chairman, Department of Economics, College of Arts and Sciences, Illinois State University, Normal, IL, 1972-1978.
Assistant, Associate, and Full Professor of Economics, Illinois State University, 1967-1978.

VISITING POSITIONS:

Visiting Professor, Department of Financial Economics and Institutions, University of Hawaii, Fall, 2001.
Visiting Scholar, Royal Melbourne Institute of Technology, Melbourne, Australia, Fall, 1995.
Visiting Professor of Business Economics and Quantitative Methods, University of Hawaii, Honolulu, HI, Fall, 1985.
Visiting Professor of Economics, Brown University, Providence, RI, Spring, 1975.
Visiting Professor of Economics, University of Grenoble, France, Fall, 1974.
Visiting Associate Professor of Economics, California State University at Los Angeles, Summer, 1972.
ACADEMIC SPECIALTIES:

- Industrial Organization, Pricing, and Antitrust
- Microeconomic Theory
- Economics of Education
- Economics of E-Commerce

FOREIGN LANGUAGE FLUENCY: Spanish (good); German (fair)

HONORS AND AWARDS:

- Who's Who in the United States
- Who's Who in the Midwest; West; South and Southwest
- Pi Gamma Mu Honorary
- Sigma Xi Scientific Research Honorary
- Golden Key Honorary
- Beta Gamma Sigma Honorary
- Phi Kappa Delta Honorary
- Teacher of the Year, Illinois State University, 1977-1978
- Alumni Achievement Award, Illinois State University, 1985
- Executive of the Year, Missoula, MT, Economic Development Corp, 1988
- Distinguished Alumni Award, Illinois State University, 1994
- Tidewater Humanitarian Award, National Conference of Christians and Jews, 1996
- Real Dream Award, Martin Luther King Family Life Institute, Norfolk, VA, 1998
- Sportsman of the Year, Norfolk Sports Club, 2000
- The Image Award, Old Dominion University Chapter of the National Association for the Advancement of Colored People, 2000
- College of Arts and Sciences Hall of Fame, Illinois State University, 2005

SIGNIFICANT BOARD MEMBERSHIPS:

- WIPB-TV Public Television, Muncie, IN (1980-86)
- First Interstate Bank, Missoula, MT (1986-90)
- State of Montana Alliance for Science and Technology (1986-90)
- Mansfield Foundation (1986-90)
- Missoula Economic Development Corporation (1986-90)
- National Prepaid Tuition Plan (1989-93)
- Community Hospital Foundation (1989-90)
- Urban League, Hampton Roads (1990-2001)
- Sun Trust Bank, Hampton Roads (1990-2001)
- Future of Hampton Roads (1990-2001)
- Center for Innovative Technology, Commonwealth of Virginia (1990-2001)
- Greater Norfolk Corporation (1990-2001)
- WHRO Public Television (1993-97)
- Virginia Commercial Space Flight Authority (1996-2001)
- Virginia Research and Technology Advisory Commission (2001-2)
- MacArthur Foundation (1992-)
- Bureau of Business and Economic Research, University of Montana (2003-2007)
- Eastern Virginia Medical School (1999-2001, 2005-)
- Esmark Corporation (including former Wheeling-Pittsburgh Steel Company, 2006-2008)
GRANTS AND FUNDING:

National Science Foundation
German Marshall Fund
Illinois Board of Higher Education
U.S. Department of Health, Education and Welfare
Kauffman Foundation

PUBLICATIONS:

Books:


*Contemporary Personal Finance*, four co-authors (Allyn and Bacon, 1985). Workbook Included.


*America for Sale? The Profits and Perils of Being Hunted and Devoured by the (Foreign) Pack*, Craig T. Bouchard, co-author (Praeger, 2009)

Monographs:


*The Economics of Branch Banking* (Chicago, IL: The Illinois Bankers Association, 1977).

*The State of the Region, 2000* (Norfolk: Old Dominion University, 2000).

*The State of the Region, 2001* (Norfolk: Old Dominion University, 2001).

*The State of the Region, 2002* (Norfolk: Old Dominion University, 2002).

*The State of the Region, 2003* (Norfolk: Old Dominion University, 2003).

*Additional Academic Programs at Florida Gulf Coast University: The Needs of the Lee/Collier/Charlotte Area* (Fort Myers, FL, 2003).

*The State of the Region, 2004* (Norfolk: Old Dominion University, 2004).
The State of the Region, 2005 (Norfolk: Old Dominion University, 2005).
The State of the Region, 2006 (Norfolk: Old Dominion University, 2006).
The State of the Region, 2007 (Norfolk: Old Dominion University, 2007).
The State of the Region, 2008 (Norfolk: Old Dominion University, 2008).
The State of the Region, 2009 (Norfolk: Old Dominion University, 2009).

Articles:


"The Economics of 'Big-Time' Intercollegiate Athletics," Social Science Quarterly (September, 1971).


"Title IX and the NCAA," *Western State University Law Review* (Spring, 1976).

"The Unfairness of 'How to Evaluate the Fairness of Faculty Salaries on Your Campus,'" (J. Chizmar, co-author) *Bulletin of the American Association of University Professors* (Spring, 1976).


"Reply to Professor Cohn," (J. Chizmar, co-author) *Economic Inquiry* (1978).


"Salary Equity Issues in Higher Education: Where Do We Stand?" Bulletin of the American Association for Higher Education (October, 1982).

"Comparable Worth in Academe: Long Overdue Equity or Pandora's Box?" Educational Record (April, 1983).


"The Incomes of Recent Immigrants: A Look at Ethnic Differences," Social Science Quarterly (June, 1987).


"Is There Discrimination in the 'Black Man's Game'?" (W. Vander Hill, co-author), Social Science Quarterly (March, 1988).


"In Search of Excellent Management," *Journal of Management Studies*, R. Cebula, co-author (September, 1994)


“The Revolution in Higher Education,” *The Richmond Journal of Law and the Public Interest* (Fall, 1998), published on line at www.richmond.edu/~perspec

“Reality Check: Why Standard Graduation Rates Don’t Truly Measure Every Campus’s Success,” *Currents* (March, 1999)

“U.S. Federal Budget Deficits: An Exploratory Empirical Note on Determining Factors During the Carter Administration,” *Economia Internazionale* (August 1999), R. Cebula, co-author


“Census State Response Rates: Myths and Realities,” *Social Science Journal* (December, 2004)


“The Influence of Ethnic Background, Gender and Age on Student Performance in Distance Learning Programs,” *Journal of Educational Technology* (October 2005).


URL: http://www.h-net.org/reviews/showrev.php?id=12093

URL: http://www.h-net.org/reviews/showrev.php?id=11928


URL: http://www.h-net.org/reviews/showrev.php?id=12558


URL: http://www.h-net.org/reviews/showrev.php?id=13888


URL: http://www.h-net.org/reviews/showrev.php?id=24055


URL: http://www.h-net.org/reviews/showrev.php?id=26181


SELECTED OTHER MISCELLANEOUS PUBLICATIONS


“Revolution in Higher Education,” Al-Muftah (September 1999).


“Person to Person Interview with James V. Koch,” Athletic Business (May 2000).

“Old Fashioned Protectionism in Higher Education,” Distance Education (1 June 2000).

“Major League Sports Teams Often Fall Short for Cities,” The Virginian Pilot (19 November 2001)


“Housing Market Stable if Navy Stays,” Virginian-Pilot (27 August 2003), Gil Yochum, co-author.


“Harvard’s President Shouldn’t Be Gagged,” Virginian-Pilot (25 January 2005)
“It’s Not About the Coffee,” *Daily Press* (14 August 2005)

“BRAC,” *Virginian-Pilot* (28 August 2005), with V. Agarwal and G. Yochum


“Alternative to Price Gouging is Worse,” *Virginian-Pilot* (5 October 2005)

“Gauging Wal-Mart,” *Virginian-Pilot* (9 April 2006)


“How to Price the Internet,” *Virginian-Pilot* (18 February 2007).


“User Fees in Transportation,” *Roanoke Times* (9 June 2008). This piece appeared in a half-dozen other newspapers in Virginia about the same time.


"The sea is rising and coastal land is sinking, and local leaders should make flooding a priority issue," *Daily Press* (13 January 2010).


-- And dozens of other opinion pieces in the *Virginian-Pilot* dealing with Old Dominion University

**SELECTED CONSULTANT WORK**

<table>
<thead>
<tr>
<th>Mid-State Educational Consultants</th>
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<td>Kingdom of Jordan</td>
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</table>
CONSULTANT AND/OR EXPERT COURT WITNESS EXPERIENCE: LAW FIRMS, ORGANIZATIONS

Jenner and Block, Chicago, IL
Jerome Torshen, Chicago, IL
McDermott, Will and Emery, Chicago, IL
Scheider, Reilly, and Zabin, Boston, MA
Welburn and Ley, Boston, MA
Morris Michelson, Boston, MA
McMahon and McMahon, Providence, RI
vonachen, Cation, et. al., Peoria, IL
Bane, Allison, et. al., Bloomington, IL
Mort Segall, Champaign, IL
Walstad and Asselin, Washington, DC
Dykema and Gossett, Detroit, MI
Lovett and Linder, Providence, RI
Belford and Belford, Fall River, MA
Choate, Halsey, and Stewart, Boston, MA
Harold Howard, San Francisco, CA
Finn and Crane, Cambridge, MA
Belli, Weil, and Jacobs, Rockville, MD
Guy Gallone, Cranston, RI
Dale Grant, North Attleboro, MA
Shanahan and Quinn, Providence, RI
Van Treese and Wyndham, Indianapolis, IN
Lowe, Steele, et. al., Indianapolis, IN
Renouf and Polivy, Washington, DC
Crowe and Dunlevy, Oklahoma City, OK
Evans, Kitchell and Jenckes, Phoenix, AR
Browne, Torrance, et. al, Marion, IN
Sommers and Barnard, Indianapolis, IN
White, Beasley, et. al., Muncie, IN
Chapleau and Farabaugh, South Bend, IN
Powers, Harsh, and Kinder, Providence, RI
Gordon, Silberman, Wiggins and Childs, Birmingham, AL
Cain, Hibbard, and Myers, Pittsfield, MA
Nazarian and Nocera, Pawtucket, RI
Charles Gray, Chester, VA Penny and Barnes, Elizabeth City, NC
Payne, Gates, Farthing, and Radd, Norfolk, VA
Collier, Shannon, Rill and Scott, Washington, DC
King, Pagano, and Harrison, Washington, DC
Vandevert, Black, Meredith, and Martin, Norfolk, VA
Stokes, Timms, Bell and Vaiden, Norfolk, VA
Hopkins and Associates, Tarboro, NC
Philip Liebman, Virginia Beach, VA
Jon Paulson, Accomack, VA
McGuire Woods Battle and Boothe, Norfolk, VA and Richmond, VA
Reid Ervin, Norfolk, VA
Gary, Williams, Parenti, et. al., Stuart, FL
Tricia Hoffler, Norfolk, VA
Hazel, Thomas, et. al., Richmond, VA
LeClaire Ryan, Alexandria, VA
Stokes, Timms, Bell and Vaiden, Williamsburg, VA
Huff, Poole and Mahoney, Virginia Beach, VA
Kelley, Drye, et. al., Washington, DC
Willcox and Savage, Norfolk, VA
Jones, Blechman, Woltz and Kelly, Newport News, VA
Williams and Mullen, Richmond, VA
U.S. Department of Justice

CONSULTANT AND/OR EXPERT WITNESS EXPERIENCE: COLLEGES AND UNIVERSITIES

Albright College (PA)
Ashland University (OH)
Auburn University (AL)
Bethany College (WV)
Bishop State Community College (AL)
California Lutheran University
Coastal Carolina University (SC)
College of DuPage (IL)
Community College of Baltimore County (MD)
Eastern Virginia Medical School
Eastern Washington University
Florida Gulf Coast University
Florida Institute of Technology
Franklin University (OH)
Grambling State University (LA)
Hood College (MD)
Illinois State University
Marian College (WI)
Molloy College (NY)
Morgan State University (MD)
Muhlenberg College (PA)
Nicholls State University (LA)
Norfolk State University (VA)
Regent University (VA)
Sierra Nevada College (NV)
Stephens College (MO)
Sterling College (KS)
Talladega College (AL)
Towson University (MD)
Truett-McConnell College (GA)
Union Institute and University (OH, VT)
University of Central Florida
University of Hawai‘i
University of Louisiana Lafayette
University of Louisiana Monroe
University of New Haven (CT)
University of Pittsburgh (PA)
University of the South (TN)

University of Central Florida
University of West Florida
Virginia State University
Virginia Wesleyan College
Waynesburg College (PA)
Wesley College (DE)
Western Kentucky University
Western Maryland College
Westminster College (UT)
Yavapai College (AZ)
CURRICULUM VITAE

VINOD B. AGARWAL

Department of Economics
Old Dominion University
Norfolk, Virginia 23529
(757) 683-3526
Fax (757) 683-5847
E-Mail - vagarwal@odu.edu

EDUCATION
Ph.D. in Economics, University of California, Santa Barbara (UCSB), 1977
M.A. in Economics, Delhi School of Economics, Delhi University, 1970.

AREAS OF INTEREST
Applied Econometrics  Housing Economics
Labor Economics  Microeconomic Theory
International Trade

HONORS AND AWARDS
Excellence in Research, School of Business Administration, Old Dominion University, 1985-86

TEACHING EXPERIENCE
Professor. Economics Department, Old Dominion University (ODU), August 1992 to Present.
Chairman. Economics Department, ODU, April 2000 to August 2006.
Assistant Professor, Economics Department, ODU, January 1981 - July 1986.
Visiting Assistant Professor. Economics Department, University of California, Santa Barbara
(UCSB), Summer, 1981, Summer, 1983.
Teaching Associate. Economics Department, UCSB, 1976.
Visiting Faculty. Indian Institute of Technology, Delhi, January 1971 - March 1971.

FUNDED RESEARCH ACTIVITY
Principal Investigator for “2010 Virginia Beach Overnight Visitor Profiles and Economic Evaluation of
"Forecasting Economic Activity in Hampton Roads,” President, Old Dominion University, (with Yochum
and Mohammad Najand) January 2010.
Principal Investigator for “A 2009 Virginia Beach Overnight Visitor Profiles and 2009 Virginia Beach
"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum

"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2008.


"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2007.


"2006 Virginia Beach Tourism Economic Impact Study," City of Virginia Beach,(with Yochum) April 2006.

"Summer 2006 Virginia Beach Overnight Visitor Profile," City of Virginia Beach, (with Yochum) April 2006. Funded

"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2006.


"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2005.

Co-Principal Investigator for “A Supplement- Teachers Research Experiences in Material Sciences”, funded through Virginia Center for Urban Education by National Science Foundation, July 2004, (with Martha Hofler and Keith Williamson).

“The Economic Impact of a Proposed LNG Facility on the York River in York County, Virginia”, funded by Pivotal Energy, April 2004, (with Koch and Yochum)


"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2004.

"An Economic Assessment of the Impact of Jobs Generated by the Hampton Roads Economic Development Alliance@, funded by the Hampton Roads Economic Development Alliance, September 2003, (with Koch and Yochum)

Co-Principal Investigator on a grant entitled "Supplement- Teachers Research Experiences in Material Sciences", funded through Virginia Center for Urban Education by National Science Foundation, July 2003, (with Hofler and Williamson)


"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2003.

"2002 Virginia Beach Tourism Economic Impact Study," City of Va Beach, (with Yochum) April 2002.
"Summer 2002 Virginia Beach Overnight Visitor Profile," City of Va Beach, (with Yochum) April 2002.
"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2002.

"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2001.


"Summer 2000 Virginia Beach Overnight Visitor Profile," City of Va Beach, (with Yochum) April 2000.
"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 2000.


"Summer 1999 Virginia Beach Overnight Visitor Profile," City of Va Beach, (with Yochum) April 1999.


"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 1997.


"1996 Virginia Beach Tourism Economic Impact Study," City of Va Beach, (with Yochum) April 1996.
"Summer 1996 Virginia Beach Overnight Visitor Profile," City of Va Beach, (with Yochum) April 1996.
"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 1996.
"1995 Annual Visitor Profile for the City of Virginia Beach," City of Va Beach, (with Yochum) November 1995.
"Forecasting Revenues and Expenditures of Virginia=s Ports,@ Virginia Port Authority, (with Yochum) October 1995.
"Forecasting Economic Activity in Hampton Roads," President, Old Dominion University, (with Yochum and Najand) January 1995.
"1994 Annual Visitor Profile for the City of Virginia Beach," City of Va Beach, (with Yochum) November 1994.
"Economic Impact of Greekfest," City of Va Beach, (with Yochum) August 1990.
"The Economic Impact and Rate of Return of Virginia's Ports on the Commonwealth," Virginia Port Authority, March 1989 (with Yochum).
"An Economic Evaluation of Tourism Advertising Expenditures”, City of Va Beach. May 1988. (with Yochum)
"1988 Virginia Beach Tourist Survey Analysis and Overnight Visitor Profile”, City of Va Beach. May 1988. (with Yochum)
"An Economic Evaluation of Advertising Expenditures for the City of Virginia Beach", Department of Economic Development, City of Va Beach, November 1986. (with Yochum).


"1984 Virginia Beach Visitor Profile." City of Va Beach, Department of Economic Development, December 1984. (with Yochum).


"Economic Impact of Foreign Students." The School of Business, ODU, Small Grant Program, May 1983.

"International Migration to the U.S", ODU School of Business, Small Grant Program, December 1982.

"Migration of Indian Professionals to the U.S", ODU School of Business, Small Grant Program, May 1982.


"Migration of Foreign Students to the United States”, The National Institute of Health, October, 1978.(with Donald Winkler, University of Southern California.)

**REFEREED RESEARCH PUBLICATIONS**


"Determinants of Tourist Spending”, Chapter in *Consumer Psychology of Tourism, Hospitality and Leisure*, Edited by Woodside, Crouch, Mazanec, Opperman and Sakai CABI Publishing 2000, pp.311-330. (with Yochum)


**RESEARCH IN PROGRESS**

“School Redistricting and its Effect on Housing Prices”

“Internet Usage and Tourism Expenditures”

**OTHER RESEARCH**

"Gross Regional Product and Gross State Product,". This is a continuing part of the Economic Forecasting Project since November 1997. (With Yochum)

"Quarterly and Annual Economic Forecast for Hampton Roads". This is a continuing project since January 1996. (with Yochum and Najand).

Contributor to State of The Region Reports, 2000-2010

"2009 Virginia Beach Tourism Economic Impact Study," City of Va Beach, (with Yochum), May 2010.

"2009 Fall Visitor Profile," City of Virginia Beach, (with Yochum), February 2010

"2009 Summer Visitor Profile," City of Va Beach, (with Yochum), November 2009

"2009 Spring Visitor Profile," City of Va Beach, (with Yochum), September 2009

“The Regional Economy Contracts” and “The Hotel Industry in Hampton Roads” in The State of The Region Report, Regional Studies Institute, Old Dominion University, (with Yochum), September 2009

A2008 Virginia Beach Tourism Economic Impact Study, City of Va Beach, (with Yochum), May 2009.

"2008 Summer Visitor Profile," City of Va Beach, (with Yochum), November 2008

“The Regional Economy Downshifts” and “Regional Housing Markets Adjust to Changing Circumstances” in The State of The Region Report, Regional Studies Institute, Old Dominion University, (with Yochum), September 2008

"2007 Virginia Beach Tourism Economic Impact Study," City of Va Beach, (with Yochum), May 2008

"2007 Summer Visitor Profile," City of Virginia Beach, (with Yochum), November 2007


"2006 Summer Visitor Profile," City of Virginia Beach, (with Yochum), November 2006.


“Hampton Roads Economy Midway Through the Decade@, “Is There a Housing Price Bubble in Hampton Roads”, and “Richard Florida and the Creative Classes of Hampton Roads” in The State of The Region Report, Regional Studies Institute, Old Dominion University, (with Yochum), October 2005


“The Regional Economy Continues to Excel@, and “How Do We Compare? Hampton Roads versus Other Regions in The State of The Region Report, Regional Studies Institute, Old Dominion University, (with Yochum), October 2004


"2003 Summer Visitor Profile," City of Virginia Beach, (with Yochum), November 2003.


“Hampton Roads...A Comparative Tour”, “The Impact of September 11", and “The Regional Distribution of Income@ in The State of The Region Report, Regional Studies Institute, Old Dominion University, (with Yochum), October 2002.


“What are the antidotes to a manic-depressive economy?”, “What impact has military downsizing had on Hampton Roads?” and Als Upscale the way to go to attract more tourist dollars:@in The State of The Region Report, Regional Studies Institute, Old Dominion University, (with Yochum), October 2000


“Real Per Capita Personal Income Variation across U.S. Metropolitan Areas in 1996" (With Yochum), May 1999


“Economic Impact of Virginia Waterfront International Arts Festival,@ Siddall, Matus and Caughter, Inc. (with Yochum), November, 1998

"1997 Virginia Beach Tourism Economic Impact Study," City of Va Beach, (with Yochum), March 1998.
"1997 Summer Visitor Profile," City of Va Beach, (with Yochum), October 1997.
"1996 Virginia Beach Tourism Economic Impact Study," City of Va Beach, (with Yochum), March 1997.
"1996 Summer Visitor Profile," City of Va Beach, (with Yochum), October 1996.
"1995 Virginia Beach Tourism Economic Impact Study", City of Va Beach, (with Yochum), March 1996.
“The Economic Impact of Eastern Virginia Medical School on Hampton Roads@, Eastern Virginia Medical School, Norfolk (with Yochum), October 1995.
"1994 Virginia Beach Tourism Economic Impact Study”, City of Va Beach, (with Yochum), March 1995.
"1993 Summer Visitor Profile," City of Va Beach, (with Yochum), December 1993.
"Effective Tax Rates by Income for the City of Norfolk," City of Norfolk, (with Yochum), April 1993.
"Summer 1990 Virginia Beach Visitor Profile," (with Yochum), December, 1990
"Economic Impact of Greekfest," City of Va Beach, (with Yochum), November 1990.
"The Economic Impact and Rate of Return of Virginia's Ports on the Commonwealth", (with Yochum), November, 1989.
"Summer 1984 Virginia Beach Visitor Profile", (with Yochum), March 1985.
"Economic Impact of Foreign Students on Old Dominion University, 1982-83". April 1984.

PAPERS PRESENTED
“Economic Value of Public Beaches - Case of Virginia Beach, Virginia, USA.” presented at the Federation of Indian Chamber of Commerce and Industry, New Delhi, India, December 1998 with Yochum)
“Determinants of Tourist Spending,” presented at the Symposium on the Consumer Psychology of Travel, Hospitality and Leisure Research, University of Hawaii at Hilo, August 1998 (with Yochum)


"Effects of Advertising on Tourism," presented at the International Atlantic Economic Conference, Williamsburg, October, 1990. (with Yochum)

"Rate of Return on Advertising Expenditures," presented at the Eastern Economic Association meeting in Cincinnati, Ohio, March 30-April 1, 1990 (with Yochum).


"Rate of Return on Tourist Advertising for Virginia Beach," presented at the Virginia Association of Economists," April, 1990 (with Yochum).

"Economic Impact and Rate of Return of Virginia's Ports." Board of Commissioners of Virginia Port Authority, Norfolk, Virginia, November, 1989 (with Yochum).


"Adjustment of Status and Its Implications." Southern Regional Demographic Conference at Orlando, October 1984.


"Migration of Professional Manpower to the United States," Eastern Economic Association Conference at College Park, Maryland in April 1982 (with Winkler).


"International Migration of Foreign Students," Western Economic Association Conference at San Diego, California, June 1980.


**RECENT SERVICE**

**2009-10**
- Member, Governor’s Advisory Board of Economists.
- Member, Virginia College Building Authority Board
- Chairman, Board of Trustees, Hindu Temple of Hampton Roads.
- Member, Taste of India Organizing Committee.
- Economic Advisor, Federation of Indian Chamber of Commerce & Industry, New Delhi, India.
- Member, Promotion and Tenure Committee, CBPA
- Chairman, Promotion and Tenure Committee, Department of Economics

**2008-09**
- Member, Governor’s Advisory Board of Economists
- Member, Virginia College Building Authority Board
- Chairman, Board of Trustees, Hindu Temple of Hampton Roads.
- Chairman, Taste of India Organizing Committee.
- Economic Advisor, Federation of Indian Chamber of Commerce & Industry, New Delhi, India.
- Member and Co-Chair, Promotion and Tenure Committee, CBPA
- Member, Strategic Planning Committee, CBPA

**2007-08**
- Member, Virginia College Building Authority Board
- Member, Governor’s Advisory Board of Economists s.
- Chairman, Board of Trustees, Hindu Temple of Hampton Roads.
- Economic Advisor, Federation of Indian Chamber of Commerce & Industry, New Delhi, India.
- Member, Standard and Procedure Committee, CBPA

**2006-07**
- Member, Virginia College Building Authority Board
Member, Governor’s Advisory Board of Economists.
Chairman, Board of Trustees, Hindu Temple of Hampton Roads.
Economic Advisor, Federation of Indian Chamber of Commerce & Industry, New Delhi, India.
Member, Standard and Procedure Committee, CBPA

2005-06  
Member, Virginia College Building Authority Board
Member, Economy Group of Council of Virginia’s Future.
Member, Economic Impact Subgroup, determining the economic impact of Oceana on the City and the region, City of Virginia Beach
President, Hindu Temple of Hampton Roads.
Economic Advisor, Federation of Indian Chamber of Commerce & Industry, New Delhi, India.

1981-2005 Detailed information on Service during this period is available upon request.
JAMES D. BLANDO, Ph.D.

Assistant Professor
Old Dominion University
College of Health Sciences
School of Community and Environmental Health
4608 Hampton Blvd. - Room 3134, Norfolk, VA 23508
(757)683-4073; jblando@odu.edu

EDUCATION & TRAINING

Post-Doctoral Research Fellow, E.I. DuPont de Nemours and Company, Haskell Laboratory for Toxicology and Industrial Medicine, Inhalation Toxicology Division, Newark, DE. 2000-2001.


Master of Health Science, Industrial Hygiene and Safety Sciences, Johns Hopkins University, School of Hygiene and Public Health, Department of Environmental Health Engineering, Baltimore, MD. 1993 – 1995.


WORK EXPERIENCE

Assistant Professor, Old Dominion University, College of Health Sciences, School of Community and Environmental Health, Norfolk, VA. (2010 - present).

-Research, Service, and Policy Focus: Environmental Health, Industrial Hygiene and Safety, Air Pollution, Occupational Health Surveillance and Epidemiology

Research Scientist, New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental, and Occupational Health, Trenton, NJ. (2001 – 2010).

-Serve as the Principle Investigator on multiple occupational and environmental health projects, obtain grants, and conduct community and policy outreach.

Post-Doctoral Research Fellow, E.I. DuPont de Nemours and Company, Haskell Laboratory for Toxicology and Industrial Medicine, Inhalation Toxicology Division, Newark, DE. (2000-2001)

-Researched health impacts of ultra-fine particles.

Project Specialist, New Jersey Department of Health and Senior Services, Environmental Health Service, Trenton, NJ. (1998 - 2000)

-Conducted environmental and occupational exposure assessments in support of pediatric cancer cluster study.

1988 - 1998

Held various full time professional and graduate assistantships in industry, government, and academia as an environmental specialist or industrial hygienist including employment with Exxon Company USA, New Jersey Department of Environmental Protection and Energy, AT&T Bell Labs, and Schering-Plough Corporation.
APPOINTMENTS

Adjunct Assistant Professor, University of Medicine and Dentistry of New Jersey - School of Public Health, Piscataway, NJ. (2007 - present).

-Graduate Course Taught: Environmental and Occupational Health Practice – Spring Semester Course; Applied course designed for MPH students intending to engage in professional practice in the environmental and occupational health field upon graduation.


Chairman, Interagency Risk Assessment Committee (IRAC), Trenton, NJ (2001 – present).

Chairman, Air Pollution Education and Research Grant Committee (APERG) (2000 – present).

Representative, New Jersey Drinking Water Quality Institute, Trenton, NJ (2002).

Representative, New Jersey Clean Air Council, Trenton, NJ (2001 – present).


PUBLICATIONS

Peer Reviewed Journals


**Selected Technical Reports and Special Projects**


Blando, J.D.; Cohn, P. (2002) Evaluation of Childhood Exposure and Health Risk from Swimming in a Pool Filled with Water Contaminated by 1,2,3-trichloropropane. New Jersey Department of Health and Senior Services (NJDHSS), Trenton, NJ.

Blando, J.D.; Cohn, P. (2001) Risk Assessment of Tetrahydrofuran in Drinking Water. New Jersey Department of Health and Senior Services (NJDHSS), Trenton, NJ.


Community Outreach


SELECTED PROFESSIONAL PRESENTATIONS

*Complete listing furnished upon request*


Blando, J.; Robertson, C.; Bresnitz, E. Evaluation of KI Prophylaxis and Nuclear Emergency Preparedness Among the General Public and Emergency Responders. *Webinars Presented on behalf*
of the Nuclear Regulatory Commission, Washington D.C., October 20, November 12, November 17, 2008.


Blando, J.; Lefkowitz, D; McGreevy, K; Valiante, D. Utilization of the USEPA Toxics Release Inventory (TRI) and High Production Volume Information System (HPVIS) to Prioritize Chemicals for Additional Public Health Follow-up. Presented at the Regional Chemicals in Commerce Workshop, Atlanta, GA. September 27, 2007.


Fagliano, J.; Berry, M.; Goun, B.; Savrin, J.; Haltmeier, P.; Blando, J.D. Case-Control Epidemiological Study of Childhood Cancers in Dover Township (Toms River) NJ. USEPA - Federal, State, Territorial Risk Assessment Committee (FSTRAC), May, 14, 2002, Washington, D.C.

Blando, J.D. Fundamental concepts in environmental health. Invited lecture, Rutgers University, September 25, 2001, New Brunswick, New Jersey.

**RESEARCH SUPPORT**

CDC/NIOSH - Total Award $140,000 (Contract #211-2008-26904)
   **Blando, J.D. - Principal Investigator** (60% time year 1; 20% time year 2)

USEPA - Total Award $10,000
   Survey of Industries Using Selected High Production Volume (HPV) Chemicals.
MED PREP NJ - Total Award $250,000.


MASS-A&WMA APERG - Total Award $25,000.


HONORS

2002 USEPA National Clean Air Excellence Award
1998 AWMA Air Pollution Research, Education, and Training Grant
1998 American Industrial Hygiene Association-Raymond Manganelli Award
1996 American Society of Safety Engineers Scholarship
1994 American Industrial Hygiene Association-Raymond Manganelli Award
1994 American Industrial Hygiene Association- Foundation Scholarship
1990 and 1991 American Society of Safety Engineers Scholarships
1990 and 1991 Water Pollution Control Association Scholarships
1991 American Industrial Hygiene Association Scholarship
1987, 1989, 1990 Air and Waste Management Association Scholarships

PROFESSIONAL ASSOCIATIONS

Air and Waste Management Association (1987-present)
  Executive Vice-President, International Board of Directors, 2009-2010
  Director - International Board of Directors, 2007 - 2010
  Chairman – Mid-Atlantic Section, 2002 – 2003
  Vice-Chairman Mid-Atlantic Section, 2001 – 2002
  Chairman – Chapter, 2006 – 2008
  Vice-Chairman – Chapter, 2004 - 2006
  Chairman, Chapter Scholarship Committee 2003 – present
  Chairman, APERG Committee 2000 – present
  Member- Mid-Atlantic Section, Web Site Committee, 2001 – present
  Member – Mid-Atlantic Section, Annual Conference Committee, 2002 – present
  Member – Mid-Atlantic Section, Membership Committee, 2002 – present

American Industrial Hygiene Association (1990-present)
American Society of Safety Engineers (1990-1993)
American Conference of Governmental Industrial Hygienists (1994-2000)
American Public Health Association (2004 – present)
HUEIWANG ANNA JENG

School of Community and Environmental Health
ODU College of Health Sciences
Health Sciences Building Room 3140
4608 Hampton Blvd, Norfolk, VA 23529
(757) 683-4594; hjeng@odu.edu

EDUCATION
Sc.D.  Public Health (Environmental Health Sciences), Tulane University, 2002
M.S.  Public Health (Environmental Health Sciences), Tulane University, 1995
B.S.  Public Health, Kaohsiung Medical University, 1992

EXPERIENCE
2010-present  Associate Professor, Community and Environmental Health Program
College of Health Sciences, Old Dominion University
2010-present  Graduate Program Director, Master’s Program in Environmental Health, School of
Community and Environmental Health, College of Health Sciences, Old Dominion
University
2010-present  Adjunct Associate Professor, Public Health Program, Eastern Virginia Medical School
2010  Visiting Associate Professor, Graduate Institute of Occupational Safety and Health College of Health Sc
2007-2010  Academic Advisor, Master’s Program in Environmental Health, College of Health
Sciences, Old Dominion University
2004-2010  Assistant Professor, Community and Environmental Health Program,
College of Health Sciences, Old Dominion University
2010-present  Adjunct Associate Professor, Department of Environmental Health Sciences
School of Public Health, Tulane University
2004-2010  Adjunct Assistant Professor, Department of Environmental Health Sciences, School of
Public Health, Tulane University
2002-2004  Post-Doctoral Fellow, Department of Environmental Health Sciences,
School of Public Health, Tulane University

PUBLICATIONS
Pontchartrain.  Proceedings of Water Environmental Federation (WEF) Technical Conference:
Disinfection of Wastes in the New Millennium.
runoff into brackish recreational waters.  Proceedings of Water Environmental Federation (WEF):
Health and Safety Achieved through Disinfection
brackish waters.  Proceedings of 2nd International Conference Marine Wastewater Discharges
Symposium, 9:12-16.


**AWARDED GRANTS**


Principal Investigator: Cellular Toxicity of Metal Oxide Nanoparticles in Mammalian Cells, Old Dominion University Faculty Summer Fellowship, 2005, $6,000.

Co-Investigator: Teratogenic Responses to Nanoparticles in vivo, *Old Dominion University Office of Research: Summer Experience Enhancing Collaborative Research*, 2006, $17,000.

Principal Investigator: Establishment of Environmental Health Tracking in Virginia: Old Dominion University Office of Research. Multi-Disciplinary Investigators Grant: $80,000.

Principal Investigator: Ultrafine particles and oxidative stress. Old Dominion University, College of Health Sciences, 2006, $3,000


Principal Investigator: Curriculum Development, Old Dominion University, 2006, $2,500.

Principal Investigator: Ambient Ultrafine Particles, Oxidative Stress, and Mitochondria Dysfunction, Jeffress Memorial Trust (J-916), 2008-2009, $20,000.

Co-Investigator: Cervical Cancer, Environmental Factor, Summer Experience Enhancing Collaborative Research ODU Office of Research, 2009, $18,000
Principal Investigator: Polycyclic Aromatic Hydrocarbons and Male Reproductive Health, National Institute for Occupational Safety and Health, R03 (1R03OH009504-01), 09/01/2009-8/30/2011, $150,000

Principal Investigator: Effects of Polycyclic Aromatic Hydrocarbons on Male Sperm Quality. National Institute of Environmental Health Sciences, R15 (1R15ES018952-01), 06/01/2010-5/31/2013, $234,283

Principal Investigator: Bio-monitoring of PAHs and VOCs from Coke-oven Emission. Taiwan Council of Labor/Institute for Occupational Safety and Health (in kind), 05/15/2010 – 11/15/2010, $14,450

HONORS AND AWARDS

1992 Excellence Academic Performance Award, Kaohsiung Medical University School of Public Health, Kaohsiung, Taiwan
1996 Sc.D. Fellowship, Tulane University School of Public Health. Department of Environmental Health Sciences
2002 Environmental Research Award, Tulane University Health Sciences Center, New Orleans, LA
2002 Outstanding Doctoral Dissertation, nominated to Delta Omega National Honor Society, ETA Chapter, New Orleans, LA
2004 Delta Omega National Honor Society in Public Health Eta Chapter, Tulane University School of Public Health and Tropical Medicine, inducted as a member, New Orleans, LA
2009 Certificate of Excellence in Promoting Undergraduate Research, ODU, Honor College
2010 Faculty Proposal Preparation Program Award, Old Dominion University, Office of Research
2010 Academic Enhancement Fellowship at Kaohsiung Medical University, sponsored by Taiwan Ministry of Education and Kaohsiung Medical University
2010 Certificates of Merit, National Environmental Health Association/Virginia Environmental Health Association
2010 Alpha Eta National Honor Society Chapter, Old Dominion University, inducted as a member, Norfolk, VA
XIUSHI YANG  
(Updated May 2010)  
Department of Sociology and Criminal Justice  
Old Dominion University  
Norfolk, VA 23529  
Phone: (757) 683-3809  
Fax: (757) 683-5634  
E-mail: xyang@odu.edu

EDUCATION:  
Ph.D.  1991, Brown University, Sociology (with a concentration in population studies)  
M.A.  1988, Brown University, Sociology (with a concentration in population studies)  
B.S.  1982, Hangzhou University, China, Economic Geography (with a concentration in urban planning)

FIELDS OF INTEREST:  
Social Demography; HIV Risk Behaviors; HIV Behavioral Intervention; Social Statistics

PROFESSIONAL EXPERIENCE:  
2005-  Professor, Department of Sociology and Criminal Justice, Old Dominion University  
2004-  Adjunct Research Scientist, Center for AIDS-Related Policy Studies, Shanghai Academy of Social Sciences  
1999-05  Associate Professor, Department of Sociology and Criminal Justice, Old Dominion University  
2007  Member, Special Emphasis Panel on Global Partnerships for Social Science AIDS Research, National Institute of Child Health and Human Development  
2006  Temporary Member, Behavioral and Social Consequences of HIV/AIDS Study Section (BSCH), National Institutes of Health  
2007-08  Temporary Member, Behavioral and Social Science Approaches to Preventing HIV/AIDS Study Section (BSPH), National Institutes of Health  
2000-02  Advisory Board Member, China Urban Research Network, State University of New York at Albany  
1998-00  Graduate Program Co-Director, M.A. in Applied Sociology, Old Dominion University  
1994-00  Adjunct Research Associate Professor, Institute of Population and Development, Zhejiang University, China  
1994-98  Director, Arts and Letters Office of Research Services, Old Dominion University  
1993-99  Assistant Professor, Department of Sociology and Criminal Justice, Old Dominion University  
1991-93  Postdoctoral Fellow, Carolina Population Center, University of North Carolina at Chapel Hill.

1984-86  Research Associate, Institute of Population and Development, Zhejiang University.

1982-84  Faculty Member and Student Advisor, Geography Department, Hangzhou University

COURSES TAUGHT:

- International Migration and Refugee Movement (Graduate);
- World Population and Development (Graduate);
- Statistics for International Studies (Graduate);
- Advanced Statistical Techniques for International Studies (Graduate);
- Population and Society (Undergraduate and Graduate);
- Applied Social Statistics (Graduate);
- Refugees (Graduate);
- An Introduction to Sociology (Undergraduate);
- Data Analysis (Undergraduate);
- Capstone Research Project (Undergraduate)

PUBLICATIONS:


RESEARCH GRANTS RECEIVED:


“Determinants of De Facto Permanent Migration in Contemporary China,” Principal Investigator. The Committee on Scholarly Communication with China. $9,300. Summer 1996.


PRESENTATIONS AT PROFESSIONAL CONFERENCES:


Yang, Xiushi. “Migration, Gender, and HIV Risk Sexual Behavior: Are There Any Link?” presented at the U.S.-China Relations Conference, Beijing, China (October 2009).


Yang, Xiushi and Guomei Xia. “Gender, Migration, and Unprotected Casual and Commercial Sex: Individual and Social Determinants of HIV/STD Risk among Female Migrants,” presented at the
Second U.S.-China Conference on Trade, Diplomacy, and Research, Beijing, China (November 2005).


Yang, Xiushi. “Patterns of Rural Development and Patterns of Rural-Urban Migration in China,” presented at the 1994 annual meetings of the Southern Demographic Association, Atlanta, GA (October).


OCCASIONAL REVIEWER FOR:

- Demography
- International Migration Review
- Studies in Family Planning
- AIDS Education and Prevention
- Social Force
- AIDS and Behavior
- AIDS Patient Care and STDs
- Women and Health
- Journal of Psychology and Human Sexuality
- European Journal of Population
- China Economic Review

Economic Development and Cultural Change
Population Research and Policy Review
The Journal of Economic History
The China Review
Asia Pacific Migration Journal
Professional Geographer
Social Science and Medicine
National Science Foundation
National Institutes of Health
The Wellcome Trust, England

AWARDS AND HONORS:

2007 Burgess Award for Faculty Research Creativity and Productivity, College of Arts and Letters, Old Dominion University
7/1989-6/1991 Rockefeller Foundation Pre-doctoral Fellowship
1991 Phi Beta Kappa
TANCY VANDECAR-BURDIN
The Social Science Research Center
Old Dominion University, BAL 2014
Norfolk, VA 23529-0076
757-683-3802
tvandeca@odu.edu

EDUCATION:

Doctor of Philosophy
Public Administration and Urban Policy, Old Dominion University, Norfolk, VA; May, 2009.
Dissertation:
“A State Comparative Study of the Factors Influencing Nursing Home Quality of Care Regulation.” Dissertation Committee: Dr. John Morris, Chair, Dr. Bill Leavitt, Dr. Randy Gainey.

Master of Arts
Applied Sociology (with a certificate in Criminal Justice), Old Dominion University, Norfolk, VA; August 1997.
Thesis:
“Bailing Out of Bonds: The Effect of Victim/Offender Relationships and Other Factors in the Setting of Bail.” Thesis Committee: Dr. James A. Nolan, Chair, Dr. Randy Gainey, Dr. Garland White.

Bachelor of Science
Criminal Justice (Magna cum laude), with a minor in Psychology, Russell Sage College, Troy, NY; May 1994.

AREAS OF RESEARCH INTEREST:
Criminology, victimology, nursing home policy, elder abuse, judicial process, urban policy, program evaluation, and public opinion research methodology.

PRESENTATIONS:
Guterbock, T.M., Vandecar-Burdin, T., White, S.G., Willis-Walton, S., and P. Agnello. 2010. “College Road Trip: Transforming the NHTS into a Web-Based Travel Diary Survey of University Students in Virginia.” Presented at the 65th Annual Meeting of the American Association for Public Opinion Research, Chicago, IL.


PUBLICATIONS AND REPORTS:


PROFESSIONAL RELATED EXPERIENCE:

Associate Director, The Social Science Research Center, Old Dominion University, Norfolk, VA, 1998-Present.

Acting Director, The Social Science Research Center, Old Dominion University, Norfolk, VA, June 17, 2004-October 31, 2004 and April, 2009-August, 2009.

Magistrate, Fourth Judicial District, 811 E. City Hall Avenue, Room 109, Norfolk, VA, 1997-1998.

TEACHING EXPERIENCE:


Adjunct Professor. Old Dominion University, Department of and Urban Studies and Public Administration, Spring 2010. Taught: Public Policy and Evaluation.
**APPLIED RESEARCH AND COMPUTER SKILLS:**

<table>
<thead>
<tr>
<th>Computer Skills:</th>
<th>Research Skills:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPSS</td>
<td>Survey construction &amp; administration</td>
</tr>
<tr>
<td>Interviewer Command Center (CATI)</td>
<td>Data management</td>
</tr>
<tr>
<td>Microsoft Office</td>
<td>Data analysis (quantitative and qualitative)</td>
</tr>
<tr>
<td>Teleform (scannable forms)</td>
<td>Focus group moderation</td>
</tr>
<tr>
<td>Inquisite (web survey)</td>
<td>Program evaluation</td>
</tr>
</tbody>
</table>
EDUCATION:

1999 M.A., Experimental Psychology, Towson University, MD.
1997 B.S., Psychology, Minor in Criminal Justice, Old Dominion University, Norfolk, VA.

PROFESSIONAL EXPERIENCE:

Old Dominion University
The Social Science Research Center
Norfolk, VA

2008-Present  Research Assistant – Research Assistant for various local, state and federal projects. Currently assisting in the coordination and evaluation of a federally funded Department of Housing and Urban Development (HUD) HOPE VI grant. Responsibilities include maintaining ongoing communication with local public housing personnel as well as overseeing an annual survey of current and former public housing residents.

2004-2008  Project Coordinator – Coordinated and assisted in the management of a federal grant funded by the Office of Special Education Programs (OSEP). Coordinated a three-year OSEP grant created to assist Virginia’s Early Intervention (Part C) program in developing an outcome indicator system. Responsibilities included managing and coordinating multiple grant activities, which included designing and developing outcome indicators for children and families and assisting in the implementation of the outcome indicator system for the state of Virginia. Additional responsibilities included the coordination and implementation of multiple statewide trainings across Virginia.

2001- 2004  Project Coordinator - Coordinate and assist in the management of a statewide project funded by the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services. Coordinated Virginia’s conversion of the early intervention Individual Child Data Form (ICDF) from a hard copy data collection process to a web-based data entry and reporting system. Conversion to the web-based system required the coordination and facilitation of meetings and trainings across the state to determine reporting functions and programming needs. Ongoing daily responsibilities included providing support for iTOTS (Infant and Toddler On-Line Tracking System) users and providing necessary support to ensure users are submitting accurate and timely data. Additional responsibilities included identifying reporting and programming needs, providing training, and serving as a liaison between users and software developers in order to continue to provide an accurate and user friendly data system.
United States Department of Transportation
The National Highway Traffic Safety Administration (NHTSA)
Washington, D.C.

2000-2001 Highway Safety Specialist – GS 11 – Provided support to regional operations across the country through the management and oversight of grants and various activities involving state and community highway safety programs.

Grant Management

Responsible for the management and administration of Section 157 and Section 411 grants of the Transportation Equity Act for the 21st Century (TEA-21). Management of the Section 157 seat belt incentive grant required the coordination of the grant award process to qualifying states with increased seat belt use rates. Management of the Section 411 State Highway Safety Data Improvement Incentive grants required the coordination of the grant award process and awarding grant money to qualifying states on order to improve the timeliness, accuracy, completeness and accessibility of state highway safety data.

Contract Management

Served as a Contracting Officer’s Technical Representative (COTR), which required responsible oversight of data service agreements within NHTSA’s regional offices and providing criteria and a model statement of work to regional offices. Also responsible for monitoring the progress of contracts through the review of the data contractor’s quarterly financial activity report.

University of Maryland - Maryland Governor’s Highway Safety Office
Hanover, MD

1999 – 2000 Data Analyst & Evaluation Coordinator - Provided day-to-day analysis and reporting of Maryland’s highway safety data and evaluated projects that are components of Maryland’s Highway Safety Plan.

Responsibilities included presenting data related to emerging traffic safety issues to community and state organizations, instructing local and statewide traffic safety representatives on the proper uses of accident data and monitoring trends in highway traffic safety across the state of Maryland.

PROFESSIONAL MEMBERSHIP:

American Association for Public Opinion Research – 2010

WORKSHOP/CONFERENCE PARTICIPATION & PRESENTATIONS:

American Association for Public Opinion Research 65th Annual Conference, 2010 – Co-author

Measuring Child & Family Outcomes National TA Meeting, 2007 – Presenter

The Second Annual Infant and Toddler Connection of Virginia Early Intervention Conference, 2003 – Presenter


Fatality Analysis and Reporting System (FARS) System Wide Annual Training, 2000 – Presenter

NHTSA Program & Grant Management Workshop, 1999

NHTSA Instructor/Facilitator Workshop, 1999

Maryland’s Annual Highway Safety Conference, 1999 – Presenter
APPENDIX B:

REFERENCE LIST OF PREVIOUS CLIENTS
APPENDIX B:
REFERENCE LIST OF PREVIOUS CLIENTS

1. **References for James V. Koch, Ph.D.:**

   **Eastern Virginia Medical School** (Norfolk)
   Contact: Mr. Harry Lester, President
   700 W Olney Road
   Norfolk, VA 23507
   (757) 446-5200
   E-mail: lesterht@evms.edu

   **McCandlish and Holton**
   Contact: Mr. Michael H. Gladstone
   1111 East Main Street
   Suite 1500
   P.O. Box 796
   Richmond, Virginia 23218-0796
   (804) 775-3813
   E-mail: mgladstone@lawmh.com

   **Bon Secours Health System**
   Contact: Ms. Louise B. Edwards
   Director, Planning/Product Development
   Bon Secours Hampton Roads Health System
   110 Kingsley Lane, Suite 511
   Norfolk, VA 23505
   (757) 889-5556
   E-mail: louise_edwards@bshsi.org

2. **References James D. Blando, Ph.D.:**

   **New Jersey Agricultural Experiment Station, Rutgers University**
   Contact: Mark Robson, Ph.D. Director
   88 Lipman Drive, Martin Hall Suite 104
   New Brunswick, NJ 08901-0525
   (732) 932-1000
   E-mail: robson@aesop.rutgers.edu
3. References for Hueiwang Anna Jeng, Sc.D.:

Virginia Department of Health, Division of Environmental Epidemiology
Contact: Rebecca Leprell, Director,
(804) 864-8111
E-mail: Rebecca.leprell@vdh.virginia.gov

Virginia Environmental Health Association
Contact: Amy Pemberton, President
(757) 253-4813
E-mail: Amy.Pemberton@vdh.virginia.gov

Department of Environmental Health Sciences, School of Public Health, Tulane University
Contact: Robert Reimers, PhD, Professor,
(504) 988-2768
E-mail: rreimers@tulane.edu

4. References for the Social Science Research Center:

University of Kentucky/Virginia Department of Behavioral Health and Developmental Services (DBHDS) General Supervision Enhancement Grant
Contact: James Henson, Mid-South Regional Resource Center
606 Brown Ave.
Shelbyville, KY 40065
(502) 220-0188
Email: jhenson@uky.edu
Virginia Department of Behavioral Health and Developmental Services
Contact: Mary Ann Discenza, Child and Family Services
1220 Bank Street
Richmond, VA 23219
(804) 371-6592
Email: maryann.discenza@dbhds.virginia.gov

Virginia Department of Behavioral Health and Developmental Services (DBHDS)
Mental Health Statistics Improvement Program Survey
Contact: George Banks, Behavioral Health - Resource Management
1220 Bank Street
Richmond, VA 23219
(804) 371-7428
Email: George.Banks@dbhds.virginia.gov

Portsmouth Redevelopment and Housing Authority (PRHA) Hope VI Evaluation
Contact: Delores Adams
Director of Housing Management
801 Water Street, Second Floor
Portsmouth, VA 23704
(757) 391-2913
Email: dadams@prha.org

Chesapeake Police Department Community-Police Satisfaction Survey
Contacts: Paul C. Leccese and Mona Danner, PhD
Police Planner and Associate Professor
Chesapeake Police Department and Department of Sociology and Criminal Justice, ODU
(757) 382-6167 and (757) 683-5931
Fax (757) 382-6331 and (757) 683-5931
Email: pleccese@cityofchesapeake.net and Email: mdanner@odu.edu
APPENDIX C:
EXAMPLES OF PREVIOUS COMPARABLE WORK

Please See Enclosed Publications:

The State of the Region
Hampton Roads 2010

&

2009 Virginia Beach
Tourism Economic Impact Study
Other Examples of Comparable Work

Dr. Anna Jeng is currently directing two federal projects on assessing male reproductive health of workers exposed to toxic organic compounds from coke oven emissions and hot asphalt. In these studies, surveys have been conducted and biological samples taken to assess health effects on the workers.

Dr. Jim Blando’s previous public health work within the nuclear power sector can include an evaluation of a joint state and local government potassium iodide (KI) distribution program in New Jersey and the knowledge of the general public regarding KI use. Other research efforts include evaluating the effectiveness of various emergency preparedness education efforts for the mass distribution of medicine and evaluations of emergency preparedness knowledge among the general public and emergency responders in close proximity to New Jersey’s nuclear power plants.

Examples of Comparable Work for the Social Science Research Center:

Virginia Department of Transportation - Student National Household Transportation Survey (NHTS): Follow-up phone calls to Old Dominion University students to encourage participation in a web survey regarding their travel patterns and behaviors. The study was conducted on behalf of the Virginia Department of Transportation and in conjunction with three other Virginia Universities (VCU, UVA, and VT). Data will be used by travel demand forecasters to predict travel demand and use for Virginia college students. Methodological paper presented at the 65th Annual American Association of Public Opinion Research in Chicago, IL. (2009-present)

Virginia Department of Behavioral Health and Developmental Services - Mental Health Statistics Improvement Program (MHSIP) Survey: Satisfaction survey of consumers of Virginia Community Services Boards to include approximately 10,000 adult mental health and substance abuse consumers who have received services. (Annually since 2005)

University of Kentucky/Virginia Department of Behavioral Health and Developmental Services - General Supervision Enhancement Grant (GSEG): Coordination and assistance in developing an Outcome Indicator System for Virginia’s Early Intervention System which serves children ages zero to three with developmental delays and disabilities. Stakeholders, including providers, parents and administrators were interviewed about the potential impact of the new Child Indicator system in Virginia. Statewide trainings were coordinated and support provided to all forty localities across the state prior to and after statewide implementation. (2005-2007)

Old Dominion University Life in Hampton Roads Survey: A regional telephone survey conducted regarding life in the Hampton Roads area. Topics covered include culture and tourism, transportation, education, health, crime, and life satisfaction. The survey will provide a source of information through which faculty can compile pilot data to develop their research publications and extramural research grant proposals and to develop a baseline of social/economic indicators that may be used by community service organizations and local governments. (March – July, 2010 and annually thereafter)
Chesapeake Police Department Community-Police Satisfaction Survey:
In collaboration with two ODU criminal justice faculty members, SSRC staff worked with the
Chesapeake police department to conduct a telephone survey of 600 Chesapeake residents to
examine public perceptions of and satisfaction with the Chesapeake Police Department. SSRC
staff were responsible for programming the survey script into computer-assisted telephone
interviewing software (CATI), recruiting, interviewing, hiring, and supervising telephone
interviewers, developing sampling quotas, obtaining necessary telephone sample from MSG, and
providing information on survey methodology and general editing for the final report. (2008)

Portsmouth Redevelopment and Housing Authority (PRHA) Hope VI Evaluation: Evaluation
of Portsmouth's HOPE VI Jeffry Wilson Homes Revitalization Project to include a process
evaluation to monitor the delivery of Community and Support Services (CSS) and to collect data
on resident outcomes through resident and staff interviews. Former Jeffry Wilson Homes
residents (n=approximately 300) are contacted annually via telephone and mail to complete a
survey. Case management staff and other service providers are also interviewed on an annual
basis. SSRC staff are responsible for programming the survey script into computer-assisted
telephone interviewing software (CATI), recruiting, interviewing, hiring, and supervising
telephone interviewers, obtaining necessary telephone sample from PRHA staff, and providing a
detailed annual report of results and survey methodology. (2007- 2011)

Central Virginia Community College (CVCC) Nuclear Technologies Education Evaluation:
Evaluation of a National Science Foundation grant that provides teachers in Central Virginia
with the resources and professional development opportunities needed to successfully teach
technical skills for the nuclear energy industry as well as providing middle school and high
school students with the technical skills required for a successful career in the nuclear energy
support technologies industry. (September, 2005-October, 2007)

Norfolk Ready to Read Evaluation: An evaluation of the Norfolk Ready to Read program which
strives to prepare pre-kindergarten aged children and their families for reading and school in
general. Both surveys and focus groups with participating parents and focus groups with in-
home mentors were used to evaluate the program and guide future improvements. (2003)