Areas of Research and Scholarship Excellence Nomination

Title: Center for Social and Economic Mobility

Category: Areas of Existing and Emerging Excellence

All team members are in the **Department of Economics**:

Co-Leads:
- Kelly Vosters, Assistant Professor
- Lisa Schulkind, Assistant Professor
- Paul Gaggl, Associate Professor

Team members:
- Tom Mayock, Associate Professor
- Musab Kurnaz, Assistant Professor
- Krista Saral, Associate Professor
- Craig Depken II, Professor

Keywords: social mobility, inequality, intergenerational mobility, public policy

Executive Summary: Social and economic mobility (henceforth mobility) have long been of interest to researchers and policy-makers seeking to reduce the influence of the "birth lottery." Early studies[1] suggested that the U.S. is a "land of opportunity," but Gary Solon's (1992) methodological advances revealed a much less mobile society than previously believed. More recently, Chetty et al. (2014) confirmed this with comprehensive U.S. tax records. "One of the most striking aspects of this study, which economists say offers the most comprehensive picture of mobility yet, is how closely its findings match Mr. Solon's" (Leonhardt 2013, New York Times).[2] More significantly, using the universe of IRS tax records allowed the analysis of geographic variation in mobility *within* the United States. With Charlotte ranked 50 out of the 50 largest U.S. metro areas, local interest in this work spiked immediately.

While this provokes an urgent call for policy action, this descriptive evidence offers no explicit policy prescriptions. We strive to make progress along this dimension by studying the causal impact of explicit policies that can potentially improve mobility in the U.S., and Charlotte in particular. Examples include policies that affect education, health, housing choices, racial and ethnic inequality, income and wealth inequality, as well as targeted technological improvements.

We are a group of economists with diverse backgrounds who have successfully published work on identifying the causal effects of policies. While most of this work offers insights on *intra*generational mobility, evidence *directly* linking such policies to *inter*generational mobility is scant. The primary obstacle is the **lack of detailed individual level data, linking children to their parents and grandparents**. While the linked IRS tax records were a big step forward, they offer no insight on how factors beyond income affect mobility. Some progress has been made using comprehensive administrative datasets in Europe, where comprehensive socioeconomic data registries exist. **Kelly Vosters** uses such data from Sweden and Norway, but such data does not exist for the U.S. U.S. Censuses prior to 1950 are one publicly available alternative (utilized by **Paul Gaggl**).[3] **Lisa Schulkind** studies how policies directly impacting mothers, indirectly affect their children, using comprehensive health records from the CDC. **Musab Kurnaz** studies the impact of taxation on mobility using the Panel Survey of Income Dynamics (PSID). While nationally representative, the PSID sample design does not allow the study of specific policies in specific areas, such as Charlotte.

We propose a "**Center for Economic and Social Mobility.**" Given the current interest in mobility in the Charlotte area, we expect that local authorities would be open to forge standing relationships with the center, providing access to detailed, linked, administrative data, with the express purpose of providing insights into potential policies to foster upward mobility. While several team members have individually been involved in cooperations with local and regional authorities, it is time to initiate a concerted effort along this dimension. Funding sources are abundant. Our primary constraint is the lack of professional grant writing staff and student research support, allowing several grant applications per year. We are a young group (mostly untenured and recently tenured), and publications are prioritized over external funding in our field. However, a center with **dedicated grant writing staff and student research assistants,** focused on our specific initiative, could help relax this constraint.

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[1] See Solon's (1999) and Black et al.'s (2011) chapters in the *Handbook of Labor Economics* for an overview.

[2] Even Raj Chetty himself notes, "What I find especially impressive is that many of [Solon's] insights — most importantly that the U.S. has substantially lower mobility than previously thought — are basically borne out by our new data that is thousands of times larger" (Leonhardt 2013). This earned Solon the title of "A Mobility Prophet".

[3] While individuals in these Censuses can be linked using names, birth year, and birthplace, the analysis is limited by the low frequency of data and by the limited amount of questions asked in the pre-1940 Censuses. For example, the U.S. Census did not ask about earnings or income prior to 1940.

Evidence of Strength and Excellence: **Kelly Vosters**, one of Gary Solon's students, works on both methodological advances in the area of intergenerational mobility and practical applications using detailed administrative data from Sweden and Norway. In her *Economic Journal* paper, she uses a unique methodological approach to refute a recent and highly controversial theory[4] positing that mobility in the U.S. is very low. This controversial theory also claims mobility is unresponsive to social programs, which she disproves in a paper using detailed Swedish administrative data (*Journal of Labor Economics*, referenced in the New York Times[5]*)*. To access the Swedish administrative data, she has to collaborate with a Swedish scholar, which allows her to delve deeper, revealing that broader social status is important for estimated levels of mobility for females, a group largely ignored in this literature. In her work under revision at *Journal of Human Resources*, she had to collaborate with a scholar from Norway to use their national administrative records. They show that an emerging literature claiming lower mobility due to *grandparent* effects on child income (conditional on parents' income) is susceptible to estimating spurious grandparent effects solely as an artifact of measurement error, which cannot be corrected with the original methods proposed by Solon and others.

While national mobility rates are of continued interest, these alone do not inform policies to promote intergenerational mobility. Hence, Vosters is now collaborating with **Tom Mayock (**a prolific scholar with work on housing affordability, racial disparities in mortgage markets, and school segregation), to examine the role that housing policy may play in improving opportunities for children from low income families. To do this, they constructed a new, unique dataset for North Carolina, which links administrative school and housing records.

Lisa Schulkind's research focuses on the causes and effects of poverty, with a particular focus on intergenerational mobility for those who are born into and grow up in the lowest bracket of the income distribution. The majority of her research focuses on infants and young children, where the inequities associated with parental status begin. Some examples include work on early childhood immunizations (*Journal of Health Economics*), the effects of mothers' health and decisions during pregnancy on infant health (*Journal of Health Economics*, *Health Economics*) and the effect of mothers' education on financial resources during childhood (*Demography*).

Paul Gaggl's past research has focused primarily on the effect of technology adoption on the distribution of income, work featured in a New York Times opinion piece and an NPR Radio Show.[6] While most of his published work (e.g., *Journal of Monetary Economics*, *American Economic Journal: Applied Economics*, *Review of Economic Dynamics*) focuses on information and communication technologies, his most recent work studies the effects of electrification in the U.S. during the 1920s (*Labour Economics*). It shows that electrification caused rural areas to shift from agriculture to manufacturing, leading to higher paying jobs. Ongoing follow-up projects, including one with **Lisa Schulkind**, link consecutive complete count U.S. Censuses for 1910-1940 to study the effects of this structural transformation on mobility, by following individuals (and their children) who have been exposed to electricity in the 1920s. Linking the 100% historical Censuses is one of the rare opportunities to directly study mobility within the entire U.S. using publicly available data.

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[4] This theory of mobility, posited by prominent economic historian Gregory Clark, is detailed in his 2014 book, "The Son Also Rises" and received substantial media attention with Op-Eds in the New York Times and The Guardian, among other outlets.
[5] The results on gender-differences are referenced in a (buried) link in this article in the New York Times: https://www.nytimes.com/interactive/2017/11/22/upshot/the-jobs-youre-most-likely-to-inherit-from-your-mother-and-father.html
[6] http://wfae.org/post/automation-and-future-work and
http://www.nytimes.com/roomfordebate/2016/10/04/easing-the-pain-of-automation/increase-top-tax-rates-to-cut-taxes-to-middle-class-workers-hurt-by-automation

Musab Kurnaz studies the impact of taxation (*American Economic Review* and *Economic Journal*), with recent work directly focusing on the impacts of taxation on intergenerational income mobility (revision requested at *Quantitative Economics*). **Craig Depken**'s work related to social mobility is in the area of sports economics (income disparity and team performance), and real estate markets, studying how public policy and large projects such as stadiums can influence housing markets in disparate ways. In ongoing work he studies the impact of COVD-19 on local labor markets with an emphasis on income disparity.

Economists have delivered major breakthroughs in the area of mobility (e.g. Solon, 1992, and Chetty et al., 2014) owing to our **empirical and theoretical methodology,** particularly suited to studying the causal impacts of public policies. Most team members have individually contributed to separate literatures that all ultimately relate to mobility. This focus on our narrow sub-fields is primarily driven by the nature of the tenure track system, which, at least in economics, emphasizes establishing a reputation as an expert in a narrow sub-field first through journal publications, before branching out later in one's career.[7]

Having established ourselves as experts in our sub-fields, we are now in the ideal position to take on a bigger project, with a particular focus on the Charlotte area. As described above, the **biggest obstacle** to obtaining credible causal estimates for possible policy interventions is **access to suitable data that links individuals across generations**. While national, comprehensive administrative datasets available for some European countries do not exist in the U.S., it is possible to create such datasets at the local and regional level. The ongoing joint work on education and housing by **Kelly Vosters** and **Tom Mayock** is one example.

We propose to form a **"center for social and economic mobility"** with the express purpose of helping policy makers enhance mobility in Charlotte and beyond. Given the recent local interest in this topic, we expect to forge standing relationships with local and regional authorities and businesses, to assemble a "**Charlotte mobility database**" that allows studying the impact of policy interventions on mobility. In addition to compiling the "Charlotte mobility database" we hope to collaborate with local authorities (e.g., CMS, CMPD, the City of Charlotte, etc.) and other UNC Charlotte faculty to **run field experiments** allowing us to test the efficacy of policies that enhance mobility. To this end, **Krista Saral**, an experimental economist, will provide valuable input with her expertise in designing and operationalizing experiments.

The key resource for the success of our center is funding for dedicated grant writing staff and student research assistants. Funding for mobility research is abundant, but the **primary constraint we face is the time to identify suitable funding opportunities and write grants**. Ideally, the center would **employ professional grant writers** for the bulk of those tasks. While most team members have had some success with obtaining grants, the grant writing process is highly counterproductive for junior faculty in economics, as it is strategically more beneficial to choose topics where data is free and no funding is necessary. Despite this, we have been **co-PIs or co-investigators on projects funded with grants worth a total of just under $2 million** (Depken ~$1.3 million, Schulkind ~$540,000, Gaggl ~$64,000, Saral ~$30,000). Sources include local (Mecklenburg county), regional (State of North Carolina), national (Robert Wood Johnson Foundation, Russell Sage Foundation), and international (World Bank).

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[7] Note that Raj Chetty did not start his "Equality of Opportunity" project and gain access to the universe of individual IRS tax records until he was a full Professor.

Alignment with Regional and National Priorities: Our proposed center is fully in line with **UNC Charlotte's mission** to "[maintain] a particular commitment to addressing the cultural, economic, educational, environmental, health, and social needs of the greater Charlotte region." Moreover, shortly after the publication of Chetty at al.'s (2014) findings and a subsequent campus visit by Nathaniel Hendren (one of Chetty's collaborators), funded by UNC Charlotte's Project Mosaic and co-organized by Paul Gaggl in the economics department, improving upward social mobility became a priority in Charlotte. Among other things, this led to the Charlotte Opportunity Initiative[8] as a part of Raj Chetty's Opportunity Insights Project at Harvard University.[9]

At the national level, our project falls under the umbrella of **two NSF big ideas**. First, the mission to build a comprehensive, linked mobility database for the Charlotte area is in line with "**Harnessing the Data Revolution**". In particular, combining methodology typically referred to as "machine learning" or "AI" (artificial intelligence) with causal inference is an active ongoing area of research as "big" datasets such as comprehensive linked tax records pose new challenges for traditional econometric methods. The linking of administrative datasets is in and of itself an area of ongoing research in which economists are actively involved. Second, the "**Future of Work at the Human-Technology Frontier**" is another key ingredient to mobility. For example, in the past, "better education" used to virtually guarantee a better future. However, technological advances since the 1980s have caused a systematic destruction of middle income jobs, many of which required substantial amounts of training and education. With the rapid advances in AI, it is likely that even more education intensive jobs will be "automated." This poses two important questions in the context of fostering mobility: first, is further development of AI that is driven by private companies' cost saving motives (most prominently the reduction of labor costs) socially optimal, particularly from a mobility perspective? Second, can innovation in AI that is targeted at fostering rather than hindering social mobility be a solution? If so, what policies can provide incentives to make such innovation profitable?[10]

In its 2021 strategic plan[11] the **National Institutes of Health** (NIH) emphasize that they will "continue to pursue research aimed at developing evidence-based interventions to reduce health disparities" such as "an NIH-supported study of women who received housing vouchers that enabled them to move from high-poverty to low- poverty neighborhoods found that such women were less likely to be obese or have diabetes than similar controls." This is precisely the type of research Lisa Schulkind brings to our team.

We view research on mobility, particularly in the Charlotte region, as a key component of the University's mission, recognizing that other units on campus are working on this topic, too. As a group of primarily young scholars, with our focus on building our reputations within our fields, we have not yet made all the connections with other groups on campus. Now that our reputations are becoming established within the field, and with some of us recently tenured or reappointed, we view interdisciplinary research with other units as the next step to making a larger impact on policy. **If the University is to move forward with mobility as a research goal, we believe that our group has a lot to offer, both as its own unit and in combination with others seeking interdisciplinary external funding, as we have been successfully publishing research on the topic of mobility from a variety of policy angles.**

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[8] See the 2020 report here: https://opportunityinsights.org/wp-content/uploads/2020/11/OI-CharlotteReport.pdf.
[9] See https://opportunityinsights.org.
[10] Paul Gaggl was lead PI for a $3 million interdisciplinary and inter-University (UVA, and U Penn) NSF proposal along these lines, titled "FW-HTF-R Intelligent Assistants: Can AI Save the Low-Skill Worker?", which was evaluated as "low competitive" and encouraged for revised submission.
[11] https://www.nih.gov/sites/default/files/about-nih/strategic-plan-fy2016-2020-508.pdf.

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Supporting Documents

Name	Title	Expertise
Kelly Vosters	Assistant Professor of Economics	Methodology for identifying intergenerational mobility patterns; past work on mobility with comprehensive, linked administrative datasets from Europe
Lisa Schulkind	Assistant Professor of Economics	Expert on health and education economics; poverty; policy evaluation
Paul Gaggl	Associate Professor of Economics	Expert on the impact of technology on labor markets and inequality. Ongoing work on mobility in the 1920s, using linked full count Census records.
Tom Mayock	Associate Professor of Economics	Expert on urban and real estate economics, including the impacts of housing markets school segregation, racial disparities in mortgage markets, and access to education
Musab Kurnaz	Assistant Professor of Economics	Expert on taxation, including work on the effect of taxation on intergenerational income mobility
Krista Saral	Associate Professor of Economics	Expert on experimental economics and behavioral economics
Craig Depken, II	Professor	Sports and real estate economics, including work on disparate effects of large public investment projects (e.g. sports stadiums)