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## Topics for Bachelor Theses at the chair of Prof. Vollmer

The list below gives topic ideas for Bachelor theses. The thesis can be written in German or English. Bachelor theses are typically a literature review of the theoretical and empirical research on the topic.

In case you are interested in writing your thesis on one of the proposed topics please contact Lisa Bogler via Email (<u>lisa.bogler@cemis.uni-goettingen.de</u>). You can also make your own proposition.

## For Master thesis requests please contact Prof. Vollmer directly.

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**Topics** 

Resource transfers, effectiveness, and electoral outcomes

To what extent do cash transfers to individuals or households affect voting for the incumbent in developing countries? And how does this align with the actual materialization of economic benefits from these transfers? The thesis can review evidence on the effect of transfers in specific countries on voting for the incumbent, and compare this with any evidence of the socioeconomic outcomes of the program for recipients. Conclusions should be drawn about whether program effectiveness is necessary and/or sufficient for political mobilization in developing country democracies.

The effect of property rights systems on agricultural productivity for small farmers *What is the relationship between property rights over the land and the input allocation decisions (and productivity outcomes) of small farmers in developing countries? What are some property rights interventions historically that have generated real productivity gains for recipients? The thesis can review what the major hypothesized relationship are, as well as the empirical evidence that has emerged from different countries to assess this question. The student should be able to differentiate between (older) purely descriptive evidence and (newer) causal evidence from experimental studies or studies that use "quasi" experimental methods.* 

Social desirability bias

Surveys can contain questions on sensitive topics, including on health and health behaviour or values. Answers to sensitive questions can be affected by social desirability bias. List experiments are one method to try to reduce the risk of social desirability bias. On which topics and in which settings has social desirability bias been documented? Does social desirability bias vary between population groups? Are list experiments successful in reducing social desirability bias and under what conditions?

Improving public service delivery

Public service delivery, e.g. the provision of primary education or primary health care, is often suboptimal in low- and middle-income countries. Many researchers and policy makers have focused on improving service delivery in specific sectors. A bachelor thesis can review the literature comparing the effect of different interventions or policies to *improve public service delivery. The student can choose to focus on a specific sector and region.* 

Teachers' attendance in school

Teachers' absenteeism is a challenge in many low- and middle-income countries. What factors influence whether teachers come to school to teach? What type of interventions have been successful or unsuccessful in reducing rates of teachers' absenteeism?

The case for and against effectiveness research

Randomized controlled trials are widely seen as a gold standard for causal research. Nevertheless, they may generate results that are limited to artificial settings (efficacy) but do not reflect real-world effects (effectiveness). Students will investigate the advantages and disadvantages of effectiveness research in their field of interest and compare various study designs for this purpose. Students who are interested in this topic should be willing to learn about advanced statistical methods such as instrumental variable and regression discontinuity designs.

Aid effectiveness – too much to ask for?

The effectiveness of bi- and multilateral aid is an important question in the context of policy evaluation, yet it remains poorly understood. Students will summarize the existing literature and discuss the most important methodological challenges and potential solutions.

Biofortification – finally a silver bullet?

Micronutrient deficiencies remain a challenge for global health and development policy. Progress in the development of new crop breeding/genetic modification approaches have led to an increased interest in biofortification as a tool to tackle these deficiencies. Students will compare the advantages and disadvantages of biofortification to traditional policy methods and discuss the potential of this new tool.

Fighting Noncommunicable Diseases in LMICS - Food-System Based Taxes

Noncommunicable diseases (NCDs), such as diabetes, are rapidly increasing in lower-and middle-income countries (LMICs). The rise of these diseases is often contributed to behavioral risk factors, such as unhealthy diets or physical inactivity. Because of that, various countries – such as Mexico – have implemented a tax on sugar sweetened beverages. Other taxes such as a meat tax are also being considered. Choose one food-system based tax. What has been the overall impact of these taxes? Did they reach their goal in lowering the disease burden? What are some of the economic consequences? Are there different effects by socioeconomic status (e.g. to which extend are the poorest affected)

Fighting Noncommunicable Diseases in LMICS – Digital Interventions

In the fight against NCDs, more interventions experiment with digital technologies, such as apps. These can be used as either prevention mechanisms (e.g. by nudging individuals away from behavioural risk factors) or as a coping strategy (e.g. by providing information, peer groups, or other things). Which interventions are already out there and how well do they work? Which impact can be achieved and what are the main limitations of this development?

Which health information is the most effective?

Many health interventions designed by state or researchers have an information component. This component varies across interventions on many counts, such as kind of information provided, the targeted recipient of the information, the channels through which information is provided and the intensity of information dissemination. The evidence on effectiveness of the information on improving health outcomes is mixed. The student should analyse the literature to draw conclusions about the most effective intervention, which has a potential of replication in different settings, and what are the pitfalls with other interventions (focusing on interventions targeted to improve health outcomes of young children).

Inter-generational transmission of health

Health outcomes can be transmitted to next generation – health outcomes pf parents affect those of children. It could happen through genes or through the environment in the household which is affected by parent's preference. What is the evidence on inter-

generational transmission of health (under and over nutrition)? Which of the channels is more important?

Scaling up

While reports from an intervention might indicate positive outcomes, such results does not necessarily guarantee that the intervention would become successful when it is scaled up at a wider scope (either in the same region or transferred elsewhere – in a national or international scale). Based on evidence from the literature, the thesis would identify examples of programs that were successfully scaled up. This could be an intervention in the field of education, health, environment, or any other topic of interest. Based on evidence from the literature, the thesis would discuss the aspect that play critical role in making a program scaling up successful as well as pitfalls and barriers in its path.

Why obesity is becoming an epidemic?

Spread of obesity seems to be the consequence of food industrialization. On the social side, however, consumers' behaviour has equally changed. Based on key points of change in food industry alongside literature from changes in public behaviour, a bachelor thesis is expected to gather evidence from developed countries, flagging historic turning points and summarise causal theories proposed in literature. This should be followed by identifying patterns in developing countries where there is a risk for obesity to become an epidemic in the close future.

Success and failure of health policies

To start, a bachelor thesis should review and summarise the health policies that helped to reduce tobacco consumption, their success rate globally and with examples from various countries. Then focusing on recent policies on promoting healthy eating and exercise, the question is that is it plausible to expect the same rate of success for these policies in combating obesity? The argument should be supported by examples and evidence from field experiments.

Effects of climate change on child labor in developing countries

According to recent ILO estimates, there are 152 million children between the ages of 5 and 17 years in child labor, almost one in ten of all children worldwide. While public attention often focuses on child labor in export industries such as carpets and sports equipment, the vast majority (about 70%) of working children are in fact engaged in the agricultural sector, often working on farms operated by their own families. Many recent studies argue that climate change has significant effects on agricultural productivity, particularly in low-income countries. However, it is not clear how these effects will influence the incidence of child labor. On the one hand, changes in agricultural productivity caused by climate change may affect the tradeoff poor parents face between sending their children to school and letting them work on their farms. For example, a common view in the economic literature is that child labor is mainly driven by subsistence poverty, so that reductions in agricultural incomes will tend to increase the incidence of child labor. On the other hand, changes in environmental conditions will affect optimal cultivation practices, including the usage of agricultural technology, to respond to the new conditions. If this increases the adoption of technologies which require additional labor input (e.g., for applying fertilizer and pesticides to plants), then climate may lead to increases in child labor. However, if climate change speeds up the adoption of labor-saving technologies (such as tractors, irrigation systems), this may reduce the demand for child labor.

The thesis will review the literature on the effects of climate change on agricultural productivity and technology adoption, and then discuss the associated implications for child labor. A focus could be placed on empirical evidence, the theoretical literature, or both.

Applications of machine learning in the literature on regional integration Recent research considers the use of clustering algorithms and evolutionary approaches adapted from the machine learning literature to evaluate the composition of regional arrangements such as customs unions, monetary unions, and regional trade agreements. The main idea underlying these studies is to start with a set of individual countries (or groups of countries) and then iteratively merge those countries that are most integrated with each other according to some quantifiable criteria. Comparing the resulting country groupings with the country compositions of actual regional agreements then provides a data-driven way to evaluate the degree to which different agreements are in line with the structure of 'natural markets' observable from the data and thus driven by economic forces, as opposed to be driven by other factors such as political considerations.

The thesis will review the growing literature that uses machine-learning techniques to evaluate agreements aimed at fostering regional integration, summarize the main empirical findings emerging from this literature, and discuss the associated implications for evidence-based policy making in this context.

Iron supplementation for the treatment of iron deficiency: The state-of-the-art knowledge

The bachelor thesis should systematically summarise evidence on the effectiveness of iron supplementation for the treatment of iron deficiency. It should consider metabolic channels as well as implementation of iron supplementation programmes.

Getting teachers to come to school

Education is a core element of inclusive economic development but in the past has suffered from the so-called learning crisis as well as the disruptive impact of covid-19-caused lockdowns. Teacher absenteeism is one constraint in the delivery of quality education that has seen a lot of interest from researchers. The evidence should be reviewed and the impact of the varying policy options to mitigate teacher absenteeism should be compared to other education interventions, e.g. deworming, scholarship programs, etc.

Inequality in cardiovascular disease risk factors in low- and middle-income countries There has been an increasing focus on non-communicable diseases in the "Global South", such as hypertension, diabetes, cardiovascular disease but also obesity and smoking. Within countries, what are the determinants (or correlations) with having a high risk of developing cardiovascular disease, such as geographic location, household wealth, education or income? The thesis should work out which evidence presents correlations and what can be said about the causal determinants of unequal cardiovascular disease risk?

Socioemotional skills as determinants for women's empowerment and labor force participation

While women increasingly receive education around the world, their labor force participation is still much lower in comparison to men in many parts, especially in South Asia. This thesis will review the evidence and the methodologies to measure socioemotional skills, such as grit and aspirations as well as team work, feedback and communication skills. Can these skills be taught through school or specific training programs? How do such trainings compare with other interventions targeting womens empowerment and labor force participation, such as information campaigns on labor market opportunities, providing safe commuting options to workplaces or <u>business</u> skills trainings?

Functionality of and policies to improve the Integrated Child Development Scheme The Indian ICDS is the world's largest social welfare programme targeting young children and their mothers. With centers in almost every village across India, it is a powerful programme to improve the nutritional and health status of financially poor families. However, its impact is often limited by inadequate service delivery. Since its set up, many studies have evaluated aspects of the ICDS and initiatives have tried to improve its service delivery. A bachelor thesis can review the literature on functionality of the different services as well as initiatives to improve it.

Improving learning outcomes in primary schools in countries of the Global South In several regions, the quality of public basic education is poor and test scores are often low. Many different interventions try to improve learning outcomes, the results are mixed. A bachelor thesis can review existing literature, comparing effectiveness and costeffectiveness of different interventions. Social unrest and economic deprivation Instances of social unrest are often attributed to economic deprivation. However, instances of social unrest and mass uprising are relatively rare compared to the extent of deprivation. Which factors influence the individual decision to 'riot' and the evolution of a mass movement? A bachelor thesis can look at a specific aspect of this wider topic, with a focus on historic incidents.