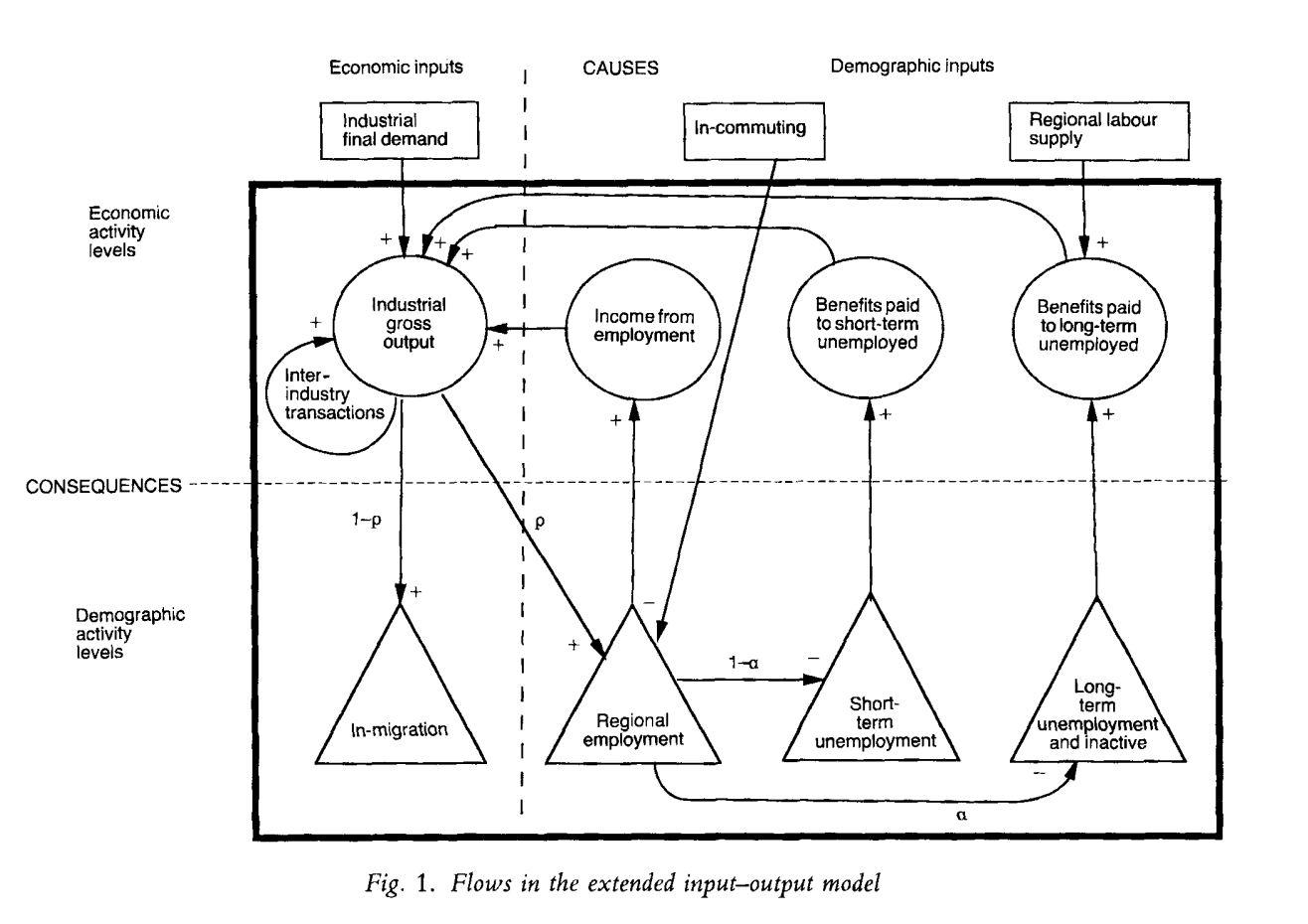
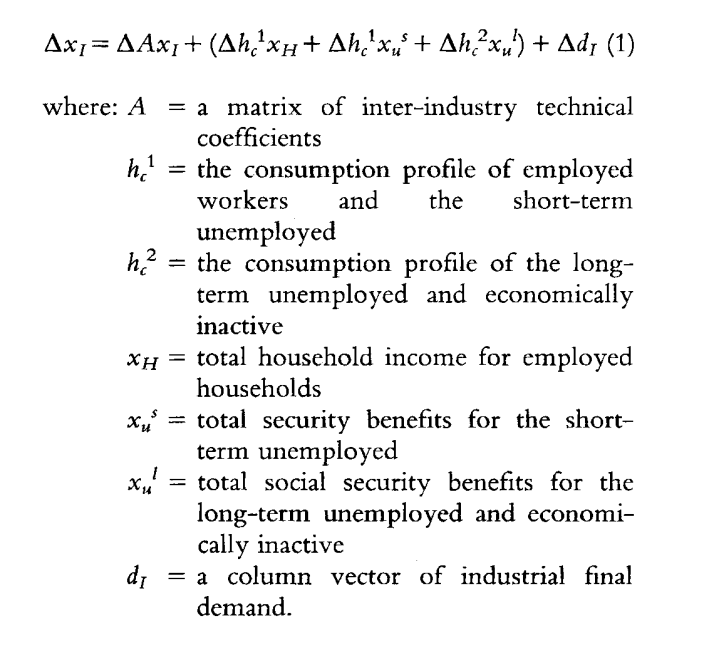
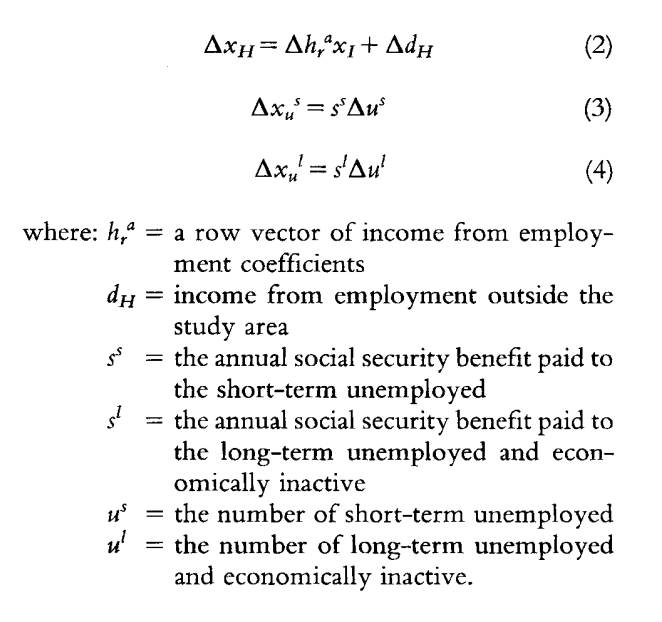
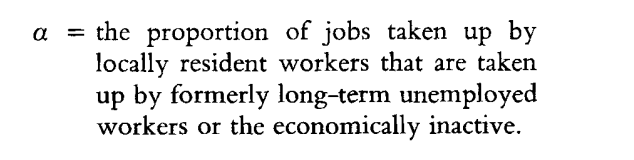
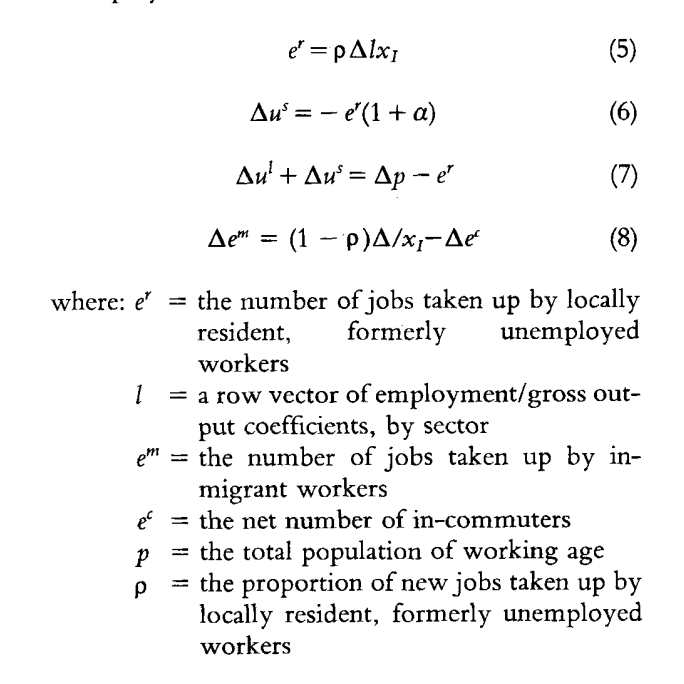
**Economic impacts of airports**

*Brief scan of the literature (Jan 21 2024)*

1. **Executive summary**
   1. Looks like CBA is a good method, but there are some challenges associated with calculating multipliers, which are explored in the “methodologies” section below
      1. Not sure whether to use a CGE or try to get an input-output table from a government source
   2. Plenty of studies exist evaluating regional growth from airports
      1. Only some look at input-output and prior risk assessment
      2. Search query used: ("economic" OR "impact" OR "impact assessment") AND ("airports" OR "airport") AND ("investment" OR "predict" OR "prediction")
   3. Can also look at sports stadium literature [(link)](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1540-6229.2007.00183.x)
2. **Marquise McGraw’s work on airports**
   1. The role of airports in city employment growth, 1950–2010 [link](https://www.researchgate.net/publication/339609242_The_role_of_airports_in_city_employment_growth_1950-2010)
      1. Synthetic control; data = newly digitized aviation records
   2. Causal Effect of Airport Hubs on Urban Growth [link](http://www.marroninstitute.nyu.edu/uploads/files/McGraw_hubs_paper.pdf)
      1. Panel regressions and event study techniques
      2. Less relevant, more about hub airports (which ours will not be)
3. **Methodologies**
   1. Cost-benefit analysis
      1. Effective and sufficiently answers the question [(link)](https://www.cambridge.org/core/journals/journal-of-benefit-cost-analysis/article/economic-evaluation-of-investments-in-airports-recent-developments/6EDF14C240B46D9C705724339EA7E7B6)
   2. Economic impact analysis (EIA)
      1. FAA-recognized methodology, used by CDM Smith to analyze effects of existing American airports [(link)](http://www.airportsforthefuture.org/did-you-know/files/2014/09/Economic-Impact-of-Commercial-Aviation-2013.pdf)
         1. Impact measures: employment, payroll, output ~ on-airport, capital improvement projects (CIP), and visitor spending
         2. Combined with IMPLAN (CGE) to calculate indirect (multiplier) effects
      2. This article says it is an insufficient method for assessing air transport since it doesn’t really evaluate welfare of the economy at large, but has been commonly used to decide on airport investment [(link)](https://www.cambridge.org/core/journals/journal-of-benefit-cost-analysis/article/economic-evaluation-of-investments-in-airports-recent-developments/6EDF14C240B46D9C705724339EA7E7B6)
   3. Computable general equilibrium (CGE) models
      1. Effective to show how it impacts the country as long as there is a “welfare measure”; can address broader impacts of evaluation for which CBA has difficulty [(link)](https://www.cambridge.org/core/journals/journal-of-benefit-cost-analysis/article/economic-evaluation-of-investments-in-airports-recent-developments/6EDF14C240B46D9C705724339EA7E7B6)
      2. We face a lack of conventional models of regional economic impacts in Ukraine specifically, but otherwise seems like a highly effective methodology [(link)](https://docs.google.com/document/d/1--nHVC6rz86FWayrrEah6sRh_aSbm00OwslJeQ_BUho/edit?usp=sharing)
4. **Example studies — predictive**
   1. Looks at link between airline traffic and employment, especially regarding potential expansion of O’Hare in 2003 [(link)](https://www.jstor.org/stable/43100460)
   2. Slightly modified input-output model [(link)](https://www.tandfonline.com/doi/abs/10.1080/00343409312331347485?casa_token=lMndokxYtO4AAAAA:yC3pqquxk3MNMoE-eFZ3kqaTYdm9NZZRMArCmeVyhcPlOtt8BqfjNjmDoItN1YJXW8INje8jJZE) equations explained below:
      1. More information about model inputs in the paper itself.
      2. 
      3. Modeling changes in industrial gross output, calculated by sector:
      4. Modeling changes in household income:
         1. 
            1. Sort of the sum of intermediate demand, household consumption, and industrial final demand
            2. Variation from the conventional input-output model: more than one type of household consumption is specified
      5. Modeling changing levels of employment and unemployment:
         1. 
5. **Other example studies — analysis of existing airports**
   1. Up in the air: the role of airports for regional economic development (l[ink](https://link.springer.com/article/10.1007/s00168-014-0651-z))
      1. Multiple regression analysis on US metro areas and effects of airports on regional economic development
      2. Two channels for regional effects: capacity to move both people and cargo
   2. Two airports in Norway: impacts on regional accessibility and social development [(link)](https://www.sciencedirect.com/science/article/pii/S0966692310001882) – public opinion analysis
      1. Local airports influence resident location and retention in remoter regions – in our case, may be relevant if a more remote airport location is chosen
   3. The Regional Economic Impact of an Airport: The Case of Amsterdam Schiphol Airport ([link](https://www.tandfonline.com/doi/abs/10.1080/00343400120075867?casa_token=9pAEWabijdMAAAAA:udtB-S5rHQM3BzeKUBJiiLSiCEzIGGqwpjwHsRnn6rmXjlS0wio3DqX2BrT_jBbqf0ITsDMYvSE))
      1. Calculates indirect and induced effects on employment *from an existing airport*
      2. Uses a social accounting matrix of the region
      3. “Counterfactual approach”: facets by regional effects
   4. <https://www.researchgate.net/publication/254435322_Airports_and_Urban_Growth_Evidence_from_a_Quasi-Natural_Policy_Experiment>