

# **L'insécurité au travail et son impact sur la santé**

Bibliographie thématique

**Septembre 2017**

**Centre de documentation de l'Irdes**

Marie-Odile Safon

Véronique Suhard

**Synthèses & Bibliographies**

Reproduction sur d'autres sites interdite mais lien vers le document accepté  
[www.irdes.fr/documentation/l-insecurite-au-travail-et-son-impact-sur-la-sante.pdf](http://www.irdes.fr/documentation/l-insecurite-au-travail-et-son-impact-sur-la-sante.pdf)

## Sommaire

Problématique : insécurité au travail et santé, des interprétations contradictoires .....	3
Impact de l'insécurité au travail sur la santé .....	4
<i>ÉTUDES FRANÇAISES</i>	<b>4</b>
<i>ÉTUDES INTERNATIONALES</i>	<b>8</b>
Impact de l'insécurité au travail sur la santé mentale .....	74
<i>ÉTUDES FRANÇAISES</i>	<b>74</b>
<i>ÉTUDES INTERNATIONALES</i>	<b>76</b>
Impact de l'insécurité au travail sur la famille (conjoint, enfants).....	138
<i>ÉTUDES FRANÇAISES</i>	<b>138</b>
<i>ÉTUDES INTERNATIONALES</i>	<b>138</b>

## Problématique : insécurité au travail et santé, des interprétations contradictoires

L'impact des récessions économiques et de l'insécurité au travail sur la santé des populations a suscité, dans la littérature, des interprétations contradictoires.

Le niveau de vie étant un déterminant essentiel de l'état de santé et un bon état de santé étant corrélé à un bon niveau de vie, on pourrait penser que les périodes de crises économiques et d'insécurité dans l'emploi ont une influence délétère sur l'état de santé. Telle fut d'ailleurs l'interprétation de M.H. Brenner dans ses travaux sur la mortalité et les récessions économiques en Angleterre et au pays de Galle sur la période 1936-1976.<sup>1</sup> Selon lui, l'instabilité économique et l'instabilité financière induites par la montée du chômage seraient à l'origine de stress, qui affecterait la santé, et plus particulièrement la santé mentale au travers de comportements à risque (alcoolisme, tabagisme...). D'autres études, dont un rapport publié récemment par le *Public Health Wales* - qui étudie les effets d'un licenciement de masse sur l'état de santé des chômeurs un an après les événements - semble corroborer cette interprétation<sup>2</sup>.

Plusieurs travaux, cependant, étayaient la thèse contraire. Dans ses études sur la mortalité aux États-Unis sur la période 1972-1991, C. Ruhm a montré que la mortalité augmentait en période de croissance économique et diminuait en période de récession. Une augmentation du taux de chômage entraînait la baisse des accidents et de certaines pathologies (maladies cardiovasculaires, troubles musculosquelettiques...). Néanmoins, la mortalité par suicide augmentait en période de chômage.<sup>34</sup>

D'autres études internationales sont venues ensuite conforter cette interprétation. On peut citer, pour la France, les travaux de T. Buchmueller, M. Grignon et F. Jusot qui portent sur une analyse des relations entre le taux de chômage et la mortalité à l'échelle des départements français sur la période 1982-2002.<sup>5</sup>

Contrairement à l'idée reçue, la littérature récente montrerait donc que la mortalité et les problèmes de santé auraient tendance à se réduire durant les récessions, en raison d'une amélioration de la santé au travail (pour ceux qui sont en emploi) et des comportements bénéfiques à la santé (meilleur suivi de sa santé, activité physique, temps passé à cuisiner induisant une meilleure alimentation...)<sup>6</sup>. Cependant, ces effets bénéfiques ne perdureraient pas en cas de persistance de la récession et baisse de revenu sur le long terme. Les populations les plus modestes seraient alors très affectées, d'autant plus s'il y a dégradation dans l'accès aux soins en l'absence de politiques publiques adaptées.

L'objectif de cette bibliographie est de recenser la littérature française et internationale (articles, ouvrages, rapports, documents de travail ...) sur la relation entre l'insécurité au travail (chômage, licenciements massifs, restructurations des entreprises...) et la santé des individus et de leur famille.

---

<sup>1</sup> Brenner M.H. (1979). Mortality and the national economy : a review, and the experience of England and Wales 1936-1979. *The Lancet*, II, 568-573.

<sup>2</sup> Davies, A. R., et al. (2017). Mass unemployment events (MUES) : Prevention and response from a public health perspective. *from a public health perspective*.

<sup>3</sup> Ruhm C.J. (2005). Healthy living in hard time. *Journal of Health Economics*, 24(2), 341-363

<sup>4</sup> Ruhm C.J. ((2003). Good times make you sick. *Journal of Health Economics*, 22, 637-658.

<sup>5</sup> Buchmueller T., Grignon M., Jusot F. (2007). Unemployment and mortality in France : 1982-2002. Working Paper Series, Centre for Health Economics Analysis.

<sup>6</sup> Jusot F. (2012). Les récessions sont-elles vraiment mauvaises pour la santé. *Sève : les tribunes de la santé*, n° 38, 73-80.

Les recherches bibliographiques ont été effectuées sur les bases et les portails suivants : Base de l'Irdes, Banque de données en santé publique (BDSP), Medline, Econlit, Cairn, Science direct, pour la période allant de 2005 à 2017.

*Cette bibliographie ne prétend pas à l'exhaustivité. D'autres aspects de la problématique sur les relations entre la santé et le travail sont abordés dans la bibliographie intitulée « [Santé et travail](#) » consultable en ligne sur le site de l'Irdes.*

## Impact de l'insécurité au travail sur la santé

### ÉTUDES FRANÇAISES

#### 2016

(2016). "Santé et itinéraire professionnel : état de la connaissance et perspectives." Dossiers Solidarite Et Sante (Drees)(73): 40.

<http://drees.social-sante.gouv.fr/IMG/pdf/dss73.pdf>

[BDSP. Notice produite par MIN-SANTE C99rR0xF. Diffusion soumise à autorisation].

L'enquête Santé et itinéraire professionnel interroge les relations entre emploi, conditions de travail et santé dans leur dimension diachronique. La première session de cet ouvrage est dédiée aux déterminants professionnels de l'état de santé et des comportements à risque. La seconde session s'intéresse tout particulièrement à la santé mentale en lien avec le travail et l'emploi. La troisième session traite des questions d'inégalités. Enfin la table ronde tenue lors du colloque a permis un échange sur les pistes d'actions pour préserver la santé au travail à la lumière des enseignements des travaux présentés. Ce document de synthèse restitue la trame des interventions et échanges qui ont rythmé la journée.

#### 2012

Ben Halima, M. A. et Lengagne, P. (2012). L'état de santé des salariés en emploi précaire en 2010. Enquête sur la santé et la protection sociale 2010, Paris : Irdes : 29-48.

<http://www.irdes.fr/Publications/Rapports2012/rap1886.pdf>

A partir des données de l'enquête santé protection sociale (ESPS) menée par l'Irdes, cet article présente des résultats statistiques sur l'état de santé des salariés en emploi précaire en 2010. Il propose une mesure de la corrélation entre emploi précaire et santé et étudie, de plus, l'influence des conditions de travail dans cette relation. Les données de l'enquête ESPS offrent la possibilité de lier des informations à la fois sur l'état de santé, l'emploi et la situation socio-économique des travailleurs, ainsi que des données sur leurs conditions de travail. La précarité de l'emploi est une notion recouvrant plusieurs dimensions ? une notion ne reflétant pas seulement le statut permanent ou temporaire du contrat de travail. Elle est ici mesurée à partir de différents indicateurs : un indicateur du contrat de travail (permanent versus temporaire), un indicateur des licenciements survenus dans l'établissement où l'enquête travaille et un indicateur d'insécurité de l'emploi ressentie.

Jusot, F. (2012). "Les récessions sont-elles vraiment mauvaises pour la santé ?" Seve : Les Tribunes De La Sante(36): 73-80.

Contrairement à l'idée reçue, la littérature récente montre que la mortalité et les problèmes de santé ont tendance à se réduire durant les récessions. L'augmentation du chômage libérerait du temps pour se soigner ou avoir une activité physique, alors que l'intensité du travail serait plus importante dans les périodes d'activité économique forte, ce qui augmenterait les risques de maladies et d'accidents. La diminution temporaire des revenus conduirait en outre à une réduction de la consommation d'alcool et de tabac. Cependant, la mortalité par suicide augmenterait ainsi que les problèmes de santé mentale. Les récessions seraient en outre un facteur aggravant des inégalités sociales de santé. Elles auraient un effet protecteur sur la santé des plus favorisés, mais un effet délétère sur celle des plus défavorisés. Enfin, les difficultés économiques et la précarité peuvent avoir un effet délétère à long terme, notamment en raison du renoncement aux soins pour raisons financières.

## 2010

Bahu, M., et al. (2010). "Parcours professionnels et état de santé." Dossiers Solidarite Et Sante (Drees)(14): 12 , tabl.

[BDSP. Notice produite par MIN-SANTE rR0xJpBq. Diffusion soumise à autorisation]. Les parcours professionnels participent à la préservation ou à l'altération de la santé des personnes, même après leur sortie d'emploi ; en sens inverse, la santé peut provoquer des ruptures ou des réorientations dans la vie professionnelle. L'enquête Santé et itinéraire professionnel (SIP) (2006-2007), montre des liens étroits entre les parcours professionnels passés et l'état de santé des personnes au moment de l'enquête : les travailleurs dont les parcours sont peu marqués par la précarité ou les mauvaises conditions de travail se déclarent plutôt en bonne santé ; ce sont plus souvent les plus qualifiés ou les personnes ayant connu une promotion sociale. En revanche, les parcours caractérisés par un déclassement social, des épisodes de chômage ou d'inactivité, des changements d'emplois fréquents ou des conditions de travail difficiles sont plus fréquemment associés à un état de santé dégradé.

Coutrot, T., et al. (2010). "Parcours professionnels et état de santé." Premieres Informations Et Premieres Syntheses(001): 10 , tabl., graph.

[http://www.travail-solidarite.gouv.fr/IMG/pdf/Janvier\\_2010-001.pdf](http://www.travail-solidarite.gouv.fr/IMG/pdf/Janvier_2010-001.pdf)

Les parcours professionnels participent à la préservation ou à l'altération de la santé des personnes, même après leur sortie d'emploi. En sens inverse, la santé peut provoquer des ruptures ou des réorientations dans la vie professionnelle. Tels sont les enseignements de l'enquête Santé et itinéraire professionnel (SIP), menée fin 2006-début 2007.

## 2009

(2009). La santé dans les restructurations : approches innovantes et recommandations de principe. Paris ASTREE: (138 ).

[http://www.astrees.org/fic\\_bdd/article\\_pdf\\_fichier/1241706166\\_La\\_sante\\_dans\\_les\\_restructurations\\_Le\\_rapport\\_HIRES.pdf](http://www.astrees.org/fic_bdd/article_pdf_fichier/1241706166_La_sante_dans_les_restructurations_Le_rapport_HIRES.pdf)

Chaque entreprise exposée à la concurrence est l'objet d'une restructuration ; c'est donc un phénomène auquel sont confrontées toutes les sociétés européennes. Une restructuration

implique un changement organisationnel beaucoup plus important que des changements courants. Elle affecte au minimum tout un secteur de l'organisation ou au plus l'ensemble de l'entreprise, et ne se limite pas à des modifications secondaires de l'activité. Les changements opérés peuvent se traduire par une fermeture, une réduction d'effectifs, l'externalisation, l'« offshoring », la sous-traitance, la fusion, la délocalisation de la production, la mobilité interne ou tout autre réorganisation interne complexe. Mis à part ses effets sur l'emploi et en raison de ces derniers, la restructuration a également un impact important sur la santé des salariés, des organisations et des communautés. Par ailleurs, la santé est un aspect fondamental qui a des répercussions sur l'emploi et la productivité au sein de l'entreprise. Préserver la santé est donc un souci essentiel pour tous ceux qui participent aux processus de restructuration, et c'est un aspect souvent négligé des changements organisationnels auquel s'est intéressé le groupe d'experts HIREs. Le groupe d'experts HIREs tente de répondre aux questions suivantes : quelles sont les données dont on dispose, qui permettraient d'étudier de manière suivie les formes courantes de restructuration organisationnelles et leurs effets, au niveau national et européen ? Existe-t-il une corrélation entre les effets de la restructuration sur la santé des individus et sur les performances de l'entreprise ? Quelles politiques européennes permettraient d'encadrer les processus de restructuration afin d'en réduire au maximum les effets négatifs sur la santé ? Comment les différents responsables de ces restructurations pourraient-ils coopérer au mieux pour préserver le bien-être au niveau de l'entreprise, celui des salariés et de la communauté ? Quelles sont les méthodes de restructuration innovantes qui prennent le mieux en compte le problème de la santé ?

Moulin, J. J., et al. (2009). "Santé et instabilité professionnelle : résultats issus des centres d'examens de santé de l'assurance-maladie." Revue D'epidemiologie Et De Sante Publique **57**(3): 141-149, rés., tabl., fig.

[BDSP. Notice produite par ORSRA q8rnR0xD. Diffusion soumise à autorisation]. Les formes d'instabilité professionnelle se sont développées au cours des 30 dernières années. L'objectif est d'étudier les relations entre la santé et diverses situations d'emplois : emplois non stables, emplois à temps partiel, chômage. Méthodes : La population d'étude comporte 767184 sujets, de 26 à 59 ans, examinés entre 2003 et 2005 dans les centres d'examens de santé de l'assurance-maladie. L'instabilité professionnelle est mesurée par les diverses situations d'emplois instables, temporaires ou à temps partiel et le chômage de durée croissante de moins de six mois à trois ans ou plus. Plusieurs dimensions de la santé sont étudiées : santé perçue, tabagisme, absence de suivi gynécologique, obésité, mauvais état buccodentaire et pression artérielle élevée. Les données ont été analysées par des modèles logistiques multivariés (odds ratios [OR]), ajustés sur l'âge, la catégorie socioprofessionnelle et le niveau d'étude, le groupe "emploi stable à temps plein" étant la catégorie de référence (OR=1). Résultats : Les indicateurs sont d'autant plus perturbés que la situation par rapport à l'emploi est plus défavorable : les emplois précaires sont plus à risque de mauvaise santé que les emplois stables, les chômeurs sont eux-mêmes plus à risque que les actifs et d'autant plus à risque que la durée du chômage est élevée. À titre d'exemple, chez les hommes, les OR de la perception négative de la santé varient de 1,00 à 1,68 [1,57-1,78] selon les formes d'emploi et de 1,75 [1,67-1,83] à 2,80 [2,72-2,89] selon la durée de chômage. De même, pour l'obésité chez les femmes, les OR varient entre 1,00 à 1,48 [1,37-1,60] chez les actifs, et de 1,35 [1,27-1,44] à 1,77 [1,70-1,84] chez les chômeurs. Conclusion : Un gradient de santé est mis en évidence au travers du continuum social lié à l'instabilité professionnelle. Les travailleurs titulaires d'emplois aidés de l'État et les chômeurs de longue durée présentent des risques particulièrement élevés de santé dégradée.

Sermet, C. et Khat, M. (2009). "Chômage et santé, une causalité multidirectionnelle." Problemes Politiques Et Sociaux(960): 102-105.

<http://www.ladocumentationfrancaise.fr/catalogue/3303332109609/>

Cet article est un extrait de "La santé des chômeurs en France : revue de littérature." Paru dans la Revue d'épidémiologie et de santé publique, n° 52, 2004, pp. 466-469 et 471-472.

## 2008

Afsa, C. (2008). Analyser les composantes du bien-être et de son évolution. Une approche empirique sur données individuelles. Document de travail ; G2008/12. Paris INSEE: 34 , tabl., fig.

[http://www.insee.fr/fr/publications-et-services/docs\\_doc\\_travail/g2008-12.pdf](http://www.insee.fr/fr/publications-et-services/docs_doc_travail/g2008-12.pdf)

Le revenu n'est pas le seul déterminant du bien-être. D'autres facteurs interviennent : des difficultés rencontrées sur le marché du travail, des problèmes de santé, ou encore un logement sans confort détériorent a priori la qualité de vie. Ils doivent être pris en compte pour mesurer correctement le bien-être des individus. Mais cela suppose qu'on sache estimer leur importance relative. Par exemple et de manière schématique : le bien-être est-il davantage affecté par le fait d'être au chômage ou de vivre dans un logement exigü ? Et de combien ? Nous proposons une méthode pour évaluer les poids respectifs des facteurs monétaires et non monétaires intervenant dans le bien-être exprimé par les personnes concernées. La méthode est fondée sur l'utilisation de variables de satisfaction et de variables plus objectives décrivant les situations individuelles. Elle permet, selon les spécifications retenues, de calculer des indices conjoncturels de l'évolution du bien être et des indicateurs de distribution du bien-être au sein de la population. Ce document utilise les données du Panel Européen des Ménages couvrant la période 1994-2001. À l'aide de modèles de panel adaptés à la nature subjective des variables de satisfaction, il estime les poids des facteurs entrant dans la composition des indicateurs de bien-être, qu'il construit grâce aux informations individuelles apportées par les enquêtes Revenus Fiscaux de l'Insee et des bases de données externes. Il discute la portée de ces premiers résultats et esquisse des pistes d'approfondissement.

## 2007

Buchmueller, T. C., et al. (2007). Unemployment and mortality in France, 1982-2002. Chepa working paper series ; 07-04. Hamilton McMaster University: 32 , tabl.

<http://www.chepa.org/Files/Working%20Papers/CHEPA%20WP%2007-04.pdf>

This study uses aggregate panel data on 96 French départements for the period from 1982 to 2002 to investigate the relationship between macroeconomic conditions and mortality, controlling for local area and time fixed effects. Consistent with research using data from other countries, we find that increases in the local unemployment rates are associated with significant reductions in mortality. Models of mortality by source indicate that the negative relationship between unemployment and mortality is strongest for deaths due to cardiovascular disease and accidents. A finding that mortality among the elderly fluctuates with the unemployment rate suggests the possible importance of externalities associated with economic upturns.

**ÉTUDES INTERNATIONALES****2017**

Brydsten, A., et al. (2017). "Does contextual unemployment matter for health status across the life course? A longitudinal multilevel study exploring the link between neighbourhood unemployment and functional somatic symptoms." *Health & Place* **43**: 113-120.

<http://www.sciencedirect.com/science/article/pii/S1353829216305068>

This study examines whether neighbourhood unemployment is related to functional somatic symptoms, independently of the individual employment, across the life course and at four specific life course periods (age 16, 21, 30 and 42). Self-reported questioner data was used from a 26-year prospective Swedish cohort (n=1010) with complementary neighbourhood register data. A longitudinal and a set of age-specific cross-sectional hierarchical linear regressions was carried out. The results suggest that living in a neighbourhood with high unemployment has implications for residents' level of functional somatic symptoms, regardless of their own unemployment across time, particularly at age 30.

Davies, A. R., et al. (2017). Mass unemployment events (MUES) : Prevention and response from a public health perspective. from a public health perspective: 80 , tab., graph., fig.

<http://www.wales.nhs.uk/sitesplus/documents/888/Watermarked%20PHW%20Mass%20Unemployment%20Report%20E%2815%29.pdf>

In the year following job loss due to mass unemployment events, workers can experience double the risk of death from heart attack or stroke and even greater increases in risk from alcohol related disease. Detrimental impacts on health can last for decades with family members sometimes affected almost as much as those facing redundancy. Working with experts across the world, Public Health Wales has led new work on public health approaches to preventing and preparing for Mass Unemployment Events which focuses especially on addressing their impact on the health of individuals, families and communities. Report author Dr Alisha Davies, Head of Research and Development at Public Health Wales, said: "Internationally large scale redundancies are not uncommon and can be devastating for those directly affected, including families and communities. However, there is much we can do to prevent, prepare and limit the impact on health when these events do happen. This report highlights the importance of ensuring health and wellbeing is at the core of preventative and responsive action; ; La fermeture locale d'une unité de production entraîne la destruction de nombreux emplois, entraînant localement une conjoncture de chômage de masse. L'organisation britannique Public Health Wales publie un rapport analysant les impacts de ces licenciements sur la santé des populations et présente des mesures pour les prévenir et les limiter. L'altération de la santé suite à la perte d'un emploi est notamment associée à une détérioration des comportements de santé : augmentation de la consommation d'alcool et de tabac, mésusages de médicaments, prise de poids, ... La santé mentale est aussi très affectée par la perte d'emploi avec une augmentation des troubles mentaux, des tentatives de suicide et suicides. Au-delà des effets individuels, le rapport met en évidence d'autres impacts concernant le bien-être du conjoint et des enfants, mais aussi dans l'ensemble de la communauté où les tensions sociales et le sentiment d'isolement s'exacerbent. Aussi, Public Health Wales propose une réponse de santé publique globale et multisectorielle face aux licenciements de masse. Il s'agit notamment d'identifier précocement les communautés exposées au risque de chômage de masse, de soutenir les chômeurs dans leur insertion professionnelle, mais aussi dans leurs difficultés financières et leur santé, ou encore de développer des actions spécifiques pour les plus vulnérables tels

que les chômeurs âgés.

Henseke, G. (2017). "Good jobs, good pay, better health? The effects of job quality on health among older European workers." Eur J Health Econ.

Using data from the Survey of Health, Ageing and Retirement in Europe, this study presents new evidence on the effects of job quality on the occurrence of severe acute conditions, the level of cardiovascular risk factors, musculoskeletal disorders, mental health, functional disabilities and self-assessed health among workers aged 50+. By combining intrinsic job quality with job insecurity and pay the study maps out multiple potential pathways through which work may affect health and well-being. Levering longitudinal data and external information on early retirement ages allows for accounting of unobserved heterogeneity, selection bias and reverse causality. The empirical findings suggest that inequities in health correlate with inequities in job quality, though a substantial fraction of these associations reflect time-constant unobserved heterogeneity. Still, there is evidence for genuine protective effects of better jobs on musculoskeletal disorders, mental health and general health. The effect could contribute to a substantial number of avoidable disorders among older workers, despite relatively modest effect sizes at the level of individuals. Mental health, in particular, responds to changes in job quality. Selection bias such as the healthy worker effect does not alter the results. But the influence of job quality on health may be transitional among older workers. An in-depth analysis of health dynamics reveals no evidence for persistence.

Khubchandani, J. et Price, J. H. (2017). "Association of Job Insecurity with Health Risk Factors and Poorer Health in American Workers." J Community Health **42**(2): 242-251.

Perceived job insecurity and health risk factors have not been well studied in the United States (US) workforce. The purpose of this study was to assess the association of specific health risk factors and morbidities with perceived job insecurity in a large national random sample of working adults in the US. The National Health Interview Survey data were analyzed for this study. We computed the prevalence of perceived job insecurity by demographic characteristics and tested the relative association between perceived job insecurity and selected health risk factors using logistic regression analysis with adjusted odds ratios (AORs). A total of 17,441 working adults were included in the study: 75 % Whites, 51.5 % females, 73.3 % worked for a private company, and 82.6 % were 25-64 years of age. One in three (33 %) workers perceived their job to be insecure. Those who reported job insecurity had significantly higher odds of: being obese, sleeping less than 6 h/day, smoking every day, having work loss days >2 weeks, and worsening of general health in the past year. Job insecure individuals had a likelihood of serious mental illness within the past 30 days almost five times higher than those who were not job insecure. In addition, job insecure individuals were significantly more likely to report pain conditions (i.e. headaches, neck pain, and low back pain), and lifetime histories of having ulcers, diabetes, hypertension, angina pectoris, and coronary heart diseases. Job insecurity is associated with poor health and health risk behaviors in American adults. Potential interventions to address job insecurity and improve the health and well-being of working adults have been discussed based on study findings.

Leopold, L., et al. (2017). "Do Immigrants Suffer More from Job Loss? Unemployment and Subjective Well-Being in Germany." Demography **54**(1): 231-257.

<http://link.springer.com/journal/volumesAndIssues/13524>

This study asks whether immigrants suffer more from unemployment than German natives.

Differences between these groups in pre-unemployment characteristics, the type of the transition into unemployment, and the consequences of this transition suggest that factors intensifying the negative impact of unemployment on subjective well-being are more concentrated in immigrants than in natives. Based on longitudinal data from the German Socio-Economic Panel Study (1990-2014; N = 34,767 persons aged 20 to 64; N = 210,930 person-years), we used fixed-effects models to trace within-person change in subjective well-being across the transition from employment into unemployment and over several years of continued unemployment. Results showed that immigrants' average declines in subjective well-being exceeded those of natives. Further analyses revealed gender interactions. Among women, declines were smaller and similar among immigrants and natives. Among men, declines were larger and differed between immigrants and natives. Immigrant men showed the largest declines, amounting to one standard deviation of within-person change over time in subjective well-being. Normative, social, and economic factors did not explain these disproportionate declines. We discuss alternative explanations for why immigrant men are most vulnerable to the adverse effects of unemployment in Germany.

Nizalova, O. Y. et Norton, E. C. (2017). Long-Run Effects of Severe Economic Recessions on Male BMI Trajectories and Health Behaviors. *IZA Discussion Paper ; 10776*. Bonn IZA: 29 , tabl., fig. <http://ftp.iza.org/dp10776.pdf>

With periodic recessions and the rising costs of health care, it is important to know how labor market participation and insecurity affects health outcomes. Yet, this line of research faces a number of methodological challenges which this paper aims to address. We turn to Ukraine's experience after the col-lapse of the USSR to investigate how exogenous labor market shocks during severe recessions affect men's body mass index (BMI) and health related behaviors. We use growth curve models to analyze BMI trajectories from 2003 to 2007 and find that past exogenous shocks (e.g., plant closings, bankruptcies, restructuring, and privatization) from 1986 to 2003 significantly change the BMI-age relationship for men. We also find a long-lasting effect on drinking behavior that is decreasing with age, while the effect on the probability of smoking is constant across all ages. At the same time, there is no effect on the probability of engaging in vigorous or moderate physical activity.

## 2016

Barnay, T. (2016). "Health, Work and Working Conditions: A Review of the European Economic Literature." *European Journal of Health Economics* **17**(6): 693-709. <http://link.springer.com/journal/volumesAndIssues/10198>

Economists have traditionally been very cautious when studying the interaction between employment and health because of the two-way causal relationship between these two variables: health status influences the probability of being employed and, at the same time, working affects the health status. Because these two variables are determined simultaneously, researchers control endogeneity skews (e.g., reverse causality, omitted variables) when conducting empirical analysis. With these caveats in mind, the literature finds that a favourable work environment and high job security lead to better health conditions. Being employed with appropriate working conditions plays a protective role on physical health and psychiatric disorders. By contrast, non-employment and retirement are generally worse for mental health than employment, and overemployment has a negative effect on health. These findings stress the importance of employment and of adequate working conditions for the health of workers. In this context, it is a concern that a significant

proportion of European workers (29 %) would like to work fewer hours because unwanted long hours are likely to signal a poor level of job satisfaction and inadequate working conditions, with detrimental effects on health. Thus, in Europe, labour-market policy has increasingly paid attention to job sustainability and job satisfaction. The literature clearly invites employers to take better account of the worker preferences when setting the number of hours worked. Overall, a specific "flexicurity" (combination of high employment protection, job satisfaction and active labour-market policies) is likely to have a positive effect on health.

Barrech, A., et al. (2016). "Mid-life job insecurity associated with subjective well-being in old age: results from the population-based MONICA/KORA study." *Scand J Work Environ Health* **42**(2): 170-174.

**OBJECTIVE:** This study aimed to examine prospectively the influence of exposure to job insecurity during working life on subjective well-being (SWB) after retirement, an association which has not been studied to date. **METHOD:** Data were derived from the prospective population-based MONICA/KORA study conducted in southern Germany. Participants were recruited and data were collected during three independent surveys between 1984-1995 (T1) and followed up in 2009 (T2). The study sample consisted of 1801 employed participants (1146 male/ 655 female) aged 41-72 years at T1 and  $\geq 65$  years at T2, without missing data. Self-administered questionnaires and clinical examinations were used to assess job insecurity and risk factors at T1 and SWB at T2. Mean follow-up was 19.6 years. Logistic regression analyses were performed to determine the association of job insecurity with SWB after retirement. We accounted for an extensive set of sociodemographic, lifestyle-, health- and work-related risk factors. **RESULTS:** At T1, 39.5% of the participants reported job insecurity, which was associated with a 1.40-fold [95% confidence interval (95% CI) 1.08-1.82] risk of low SWB at T2 in models adjusted for sociodemographic and lifestyle- and health-related conditions at T1. Additional adjustment for a set of work-related risk factors at T1 had little effect on this association. **CONCLUSIONS:** Exposure to job insecurity at midlife was associated with low SWB in retirement, even after controlling for an extensive set of risk factors. This shows that the negative effects of unstable working conditions might persist well into retirement, long after cessation of employment.

Boschetto, B., et al. (2016). "Work-Related Stress and Associated Factors in Italy: A Comparison before and during the Economic Crisis." *Rivista Internazionale di Scienze Sociali* **124**(3-4): 283-300.

<http://www.vitaepensiero.it/rivista/rivista-internazionale-di-scienze-sociali-3.html>

Over recent decades, psychosocial risks like harassment at places of work, depression, anxiety and addictions, have emerged as contemporary challenges for worker's health and productivity. The aim of this paper is to assess whether the worsening of working conditions due to the crisis resulted in increased work-related stress. Focusing on the Italian context and using data from the Labour Force Survey (ISTAT) from 2007 and 2013, this study analyzes from a gender perspective the presence of health problems like stress, depression and anxiety, among Italian workers and it investigates changes in work-related stress and its main determinants, before and during the crisis. Results show that in spite of the risk of job loss or job reduction stress, depression and anxiety probably become less important, especially for those workers in a weak job position. Yet, although similar patterns, gender differences are found.

Caroli, E. et Godard, M. (2016). "Does Job Insecurity Deteriorate Health?" *Health Economics* **25**(2):

131-147.

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-1050/issues>

This paper estimates the causal effect of perceived job insecurity--that is, the fear of involuntary job loss--on health in a sample of men from 22 European countries. We rely on an original instrumental variable approach on the basis of the idea that workers perceive greater job security in countries where employment is strongly protected by the law and more so if employed in industries where employment protection legislation is more binding; that is, in industries with a higher natural rate of dismissals. Using cross-country data from the 2010 European Working Conditions Survey, we show that, when the potential endogeneity of job insecurity is not accounted for, the latter appears to deteriorate almost all health outcomes. When tackling the endogeneity issue by estimating an instrumental variable model and dealing with potential weak-instrument issues, the health-damaging effect of job insecurity is confirmed for a limited subgroup of health outcomes; namely, suffering from headaches or eyestrain and skin problems. As for other health variables, the impact of job insecurity appears to be insignificant at conventional levels.

Chambel, M. J., et al. (2016). "The effects of temporary agency work contract transitions on well-being." *Int Arch Occup Environ Health* **89**(8): 1215-1228.

**PURPOSE:** Theoretical and empirical research has provided mixed arguments and evidence for the effects of temporary agency work on workers' well-being. This study aims to go one critical step further by comparing the workplace and general well-being of workers who continue to have this employment status with others who obtain a direct contract and others who remain unemployed. **METHODS:** Temporary agency workers longitudinal data (n = 289) was used, and three groups were compared: (1) maintaining a temporary agency contract (n = 187), (2) obtaining a direct contract (n = 57), and (3) remaining unemployed (n = 45). **RESULTS:** Covariance analyses adjusted for background variables showed that those who obtained a direct contract experienced a decrease in job insecurity but experienced an increase in job demands, while those who continued to have a temporary agency contract maintained these job conditions. However, in terms of workplace well-being, the temporary agency contract was not found to be more detrimental than a direct contract, but in terms of life satisfaction, unemployment was found to be more detrimental than other transitions. **CONCLUSIONS:** A temporary agency contract does not have an inevitable negative effect on workers' well-being.

Colell, E., et al. (2016). "Gender differences in the use of alcohol and prescription drugs in relation to job insecurity. Testing a model of mediating factors." *Int J Drug Policy* **37**: 21-30.

**BACKGROUND:** The results of several studies suggest that economy-related stressors are less distressing for women compared with men. This study proposed to examine the relationship of perceived job insecurity with the use of licit drugs using a theoretical model that considered antecedents and mediators of this association, in order to identify differences between working men and women. **METHODS:** Using information from the Catalan Health Survey (2010-2014), we selected working individuals aged 16-64 who were primary providers of household income (N=5315). The outcomes were two measures of alcohol consumption (heavy drinking and binge drinking) and the use of hypnotics/sedatives. As antecedents of the exposure to job insecurity we considered the type of contractual relationship and occupational class. The mediating factors were poor mental health, household structure and the hours of housework per week. The theoretical model was assessed using path analysis where the moderating effect of gender was considered in all the associations. **RESULTS:** No

differences in the prevalence of job insecurity were found between men and women (17%). Job insecurity (Odds ratio [OR]=1.35, 95% confidence interval [CI]=1.23-1.48) and house workload (OR=1.01, 95% CI=1.00-1.02) were positively associated with poor mental health, with no significant interactions with gender. Poor mental health was significantly associated with binge drinking (OR=1.23, 95% CI=1.13-1.33) and with the use of hypnotics/sedatives (OR=1.71, 95% CI=1.53-1.91). House workload showed a direct negative association with binge drinking (OR=0.99, 95% CI=0.98-1.00), while those in households with no children were more likely to be binge drinkers, with no significant interactions with gender. An alternative model had better fitting results for heavy drinking. CONCLUSION: No gender differences were found in the association of job insecurity with mental health nor with the use of substances among primary providers of household income, emphasising the importance of social roles when assessing differences in mental health among men and women.

Colombo, E., et al. (2016). Macroeconomic Conditions and Health: Inspecting the Transmission Mechanism. Working Paper No. 337. Milan Université de Milan: 23, tab.,fig.  
[http://www.ecostat.unical.it/RePEc/WorkingPapers/WP04\\_2016.pdf](http://www.ecostat.unical.it/RePEc/WorkingPapers/WP04_2016.pdf)

This paper studies the effects of labor market conditions on individual-level health, investigating the factors that moderate and mediate this relationship. Using a large and representative sample of individuals in Italy between 1993 and 2012, we shed light on the transmission mechanism, focusing on the role played by health behaviors (smoking, alcohol consumption, physical activity, eating habits) and economic stress. We find that, overall, higher local unemployment negatively affects health, with a dynamic response that differs across health conditions. Employment status and educational level play a significant role as moderators of these effects. Eating habits, in addition to economic stress, are found to play a key role in the transmission mechanism, while physical activity acts as a buffer against the adverse health effects of unemployment shocks.

Coppola, G. et O'Higgins, N. e. (2016). Youth and the Crisis: Unemployment, Education and Health in Europe, Routledge Studies in Labour Economics, vol. 1.

Fourteen papers examine the entry of youth into the labor market in Europe, exploring the context, choices, and experiences of young people and the consequences these have for youth. Papers discuss monopsony power and work-based training; overeducation--a disease of the school-to-work transition system; dropping out from University--an empirical analysis of students' performance; university dropout rates in Italy; why the future has early roots--learning outcomes and school's effectiveness in Tuscany's primary education system; smoking, drinking, never thinking of tomorrow--income and risky choices amongst young adults in the United Kingdom; obesity and the economic performance of young people in Italy; leaving home and housing prices--the experience of Italian youth emancipation; leaving home and poverty before and after the economic crisis in southern European Countries; youth unemployment and health over fifty--evidence for the European countries; intergenerational equity and intergenerational mobility in Italy--an analysis from the Survey of Household Income and Wealth; youth reemployment probabilities in a gender perspective--the case of Italy; the regional impact of the crisis on young people in different EU countries; and young people in transitions--conditions, indicators, and policy implications of people not in education, employment, or training. Coppola is Lecturer in Economics with the Department of Economic Science and Statistics at the University of Salerno. O'Higgins is Senior Research Specialist in the Youth Employment Programme at the International Labour Organization and Professor of Economics at the University of Salerno. Index.

Cottini, E. et Ghinetti, P. (2016). Employment insecurity and employees' health in Denmark. *Working Paper*; 45. Milan Universita Catolica del Sacro Cuore: 30 , tabl., fig.  
<https://ideas.repec.org/p/ctc/serie1/def045.html>

We use register data for Denmark (IDA) merged with the Danish Work Environment Cohort Survey (1995-2000-2005) to estimate the effect of employment insecurity on health for a sample of Danish employees. We consider two health measures from the SF-36 Health Survey Instrument: a vitality scale for general wellbeing and a mental health scale. We use three dimensions of perceived employment insecurity: the fear of job loss (job tenure insecurity), of being transferred against will (job status insecurity) and of not finding another job if the current one is lost (employability insecurity). The nature of the dataset enables us to account for both individual and firm fixed. Results show that, overall, employment insecurity matters for both health measures. All the three insecurity dimensions increase psychological distress of workers, while general wellbeing is negatively affected mostly by employability prospects. We also exploit within country variability in employment protection rules by tenure and between blue and white collars to analyse differences in the health effect of our insecurity measures over these dimensions. We find substantial heterogeneity by tenure (attenuated effects by increasing tenure especially for job tenure insecurity) and occupation (white collars are worse off in their health gradient compared to blue collars).

Crost, B. (2016). "Can workfare programs offset the negative effect of unemployment on subjective well-being?" *Economics Letters* **140**: 42-47.

D'Angelo, S., et al. (2016). "Job dissatisfaction and the older worker: baseline findings from the Health and Employment After Fifty study." *Occup Environ Med* **73**(8): 512-519.

**OBJECTIVES:** Demographic changes are requiring people to work longer. Labour force participation might be promoted by tackling sources of job dissatisfaction. We aimed to describe the epidemiology of job dissatisfaction in older British workers, to explore which perceptions of work contribute most importantly, and to assess possible impacts on health. **METHODS:** Participants aged 50-64 years were recruited from 24 English general practices. At baseline, those currently in work (N=5437) reported on their demographic and employment circumstances, overall job satisfaction, perceptions of their work that might contribute to dissatisfaction, and their general health, mood and well-being. Associations of job dissatisfaction with risk factors and potential health outcomes were assessed cross-sectionally by logistic regression, and the potential contributions of different negative perceptions to overall dissatisfaction were summarised by population attributable fractions (PAFs). **RESULTS:** Job dissatisfaction was more common among men, below age 60 years, those living in London and the South East, in the more educated and in those working for larger employers. The main contributors to job dissatisfaction among employees were feeling unappreciated and/or lacking a sense of achievement (PAF 55-56%), while in the self-employed, job insecurity was the leading contributor (PAF 79%). Job dissatisfaction was associated with all of the adverse health outcomes examined (ORs of 3-5), as were most of the negative perceptions of work that contributed to overall dissatisfaction. **CONCLUSIONS:** Employment policies aimed at improving job satisfaction in older workers may benefit from focussing particularly on relationships in the workplace, fairness, job security and instilling a sense of achievement.

Ferrie, J. E., et al. (2016). "Job insecurity and risk of diabetes: a meta-analysis of individual participant data." *Cmaj* **188**(17-18): E447-e455.

**BACKGROUND:** Job insecurity has been associated with certain health outcomes. We examined the role of job insecurity as a risk factor for incident diabetes. **METHODS:** We used individual participant data from 8 cohort studies identified in 2 open-access data archives and 11 cohort studies participating in the Individual-Participant-Data Meta-analysis in Working Populations Consortium. We calculated study-specific estimates of the association between job insecurity reported at baseline and incident diabetes over the follow-up period. We pooled the estimates in a meta-analysis to produce a summary risk estimate. **RESULTS:** The 19 studies involved 140 825 participants from Australia, Europe and the United States, with a mean follow-up of 9.4 years and 3954 incident cases of diabetes. In the preliminary analysis adjusted for age and sex, high job insecurity was associated with an increased risk of incident diabetes compared with low job insecurity (adjusted odds ratio [OR] 1.19, 95% confidence interval [CI] 1.09-1.30). In the multivariable-adjusted analysis restricted to 15 studies with baseline data for all covariates (age, sex, socioeconomic status, obesity, physical activity, alcohol and smoking), the association was slightly attenuated (adjusted OR 1.12, 95% CI 1.01-1.24). Heterogeneity between the studies was low to moderate (age- and sex-adjusted model:  $I^2 = 24\%$ ,  $p = 0.2$ ; multivariable-adjusted model:  $I^2 = 27\%$ ,  $p = 0.2$ ). In the multivariable-adjusted analysis restricted to high-quality studies, in which the diabetes diagnosis was ascertained from electronic medical records or clinical examination, the association was similar to that in the main analysis (adjusted OR 1.19, 95% CI 1.04-1.35). **INTERPRETATION:** Our findings suggest that self-reported job insecurity is associated with a modest increased risk of incident diabetes. Health care personnel should be aware of this association among workers reporting job insecurity.

Goh, J., et al. (2016). "The Relationship between Workplace Stressors and Mortality and Health Costs in the United States." *Management Science* **62**(2): 608-628.

<http://mansci.journal.informs.org/content/by/year>

Even though epidemiological evidence links specific workplace stressors to health outcomes, the aggregate contribution of these factors to overall mortality and health spending in the United States is not known. In this paper, we build a model to estimate the excess mortality and incremental health expenditures associated with exposure to the following 10 workplace stressors: unemployment, lack of health insurance, exposure to shift work, long working hours, job insecurity, work-family conflict, low job control, high job demands, low social support at work, and low organizational justice. Our model uses input parameters obtained from publicly accessible data sources. We estimated health spending from the Medical Expenditure Panel Survey and joint probabilities of workplace exposures from the General Social Survey, and we conducted a meta-analysis of the epidemiological literature to estimate the relative risks of poor health outcomes associated with exposure to these stressors. The model was designed to overcome limitations with using inputs from multiple data sources. Specifically, the model separately derives optimistic and conservative estimates of the effect of multiple workplace exposures on health, and uses optimization to calculate upper and lower bounds around each estimate, which accounts for the correlation between exposures. We find that more than 120,000 deaths per year and approximately 5%-8% of annual healthcare costs are associated with and may be attributable to how U.S. companies manage their work forces. Our results suggest that more attention should be paid to management practices as important contributors to health outcomes and costs in the United States.

Gordon, S. H. et Sommers, B. D. (2016). "Recessions, Poverty, and Mortality in the United States: 1993-2012." *American Journal of Health Economics* **2**(4): 489-510.

<http://www.mitpressjournals.org/loi/ajhe>

Prior studies suggest that higher unemployment rates reduce mortality, but newer research suggests this relationship may have attenuated in recent decades. Moreover, individual-level evidence shows a negative effect of economic adversity on survival. We revisit this question using county-level data and two additional macroeconomic measures: poverty rates and median incomes. Examining county-level mortality among nonelderly adults from 1993 to 2012, we find that higher unemployment has modest negative impacts on mortality, in contrast to prior work using older state-level data. More notably, county-level poverty rates and lower median incomes produce larger and consistently negative effects on mortality, both in the short term and also for several years afterwards. These findings are consistent across multiple causes of death and for different subgroups of adults. While previous research has found that higher unemployment may produce small beneficial effects on survival, our analysis using more recent and granular data suggests this relationship no longer holds, and other economic measures such as median income and poverty rates provide stronger evidence that adverse economic conditions lead to higher mortality.

Griep, Y., et al. (2016). "The effects of unemployment and perceived job insecurity: a comparison of their association with psychological and somatic complaints, self-rated health and life satisfaction." *Int Arch Occup Environ Health* **89**(1): 147-162.

**PURPOSE:** Research has provided convincing evidence for the adverse effects of both short- and long-term unemployment, and perceived job insecurity on individuals' health and well-being. This study aims to go one critical step further by comparing the association between short- and long-term unemployment, and perceived job insecurity with a diverse set of health and well-being indicators. **METHODS:** We compare four groups: (1) secure permanent employees (N = 2257), (2) insecure permanent employees (N = 713), (3) short-term unemployed (N = 662), and (4) long-term unemployed (N = 345) using cross-sectional data from the nationally representative Living Conditions Survey in Finland. **RESULTS:** Covariance analyses adjusted for background variables support findings from earlier studies that long-term unemployment and perceived job insecurity are detrimental: short-term unemployed and secure permanent employees experienced fewer psychological complaints and lower subjective complaints load, reported a higher self-rated health, and were more satisfied with their life compared to long-term unemployed and insecure permanent employees. Second, whereas unemployment was found to be more detrimental than insecure employment in terms of life satisfaction, insecure employment was found to be more detrimental than unemployment in terms of psychological complaints. No differences were found regarding subjective complaints load and self-rated health. **CONCLUSIONS:** Our findings suggest that (1) insecure employment relates to more psychological complaints than short-term unemployment and secure permanent employment, (2) insecure employment and long-term unemployment relate to more subjective complaints load and poorer health when compared to secure permanent employment, and (3) insecure employment relates to higher life satisfaction than both short- and long-term unemployment.

Hamad, R., et al. (2016). "The Effects of Job Insecurity on Health Care Utilization: Findings from a Panel of U.S. Workers." *Health Serv Res* **51**(3): 1052-1073.

**OBJECTIVE:** To examine the impacts of job insecurity during the recession of 2007-2009 on health care utilization among a panel of U.S. employees. **DATA SOURCES/STUDY SETTING:** Linked administrative and claims datasets on a panel of continuously employed, continuously insured individuals at a large multisite manufacturing firm that experienced widespread layoffs (N = 9,486). **STUDY DESIGN:** We employed segmented regressions to examine

temporal discontinuities in utilization during 2006-2012. To assess the effects of job insecurity, we compared individuals at high- and low-layoff plants. Because the dataset includes multiple observations for each individual, we included individual-level fixed effects. PRINCIPAL FINDINGS: We found discontinuous increases in outpatient (3.5 visits/month/10,000 individuals,  $p = .002$ ) and emergency (0.4 visits/month/10,000 individuals,  $p = .05$ ) utilization in the panel of all employees. Compared with individuals at low-layoff plants, individuals at high-layoff plants decreased outpatient utilization (-4.0 visits/month/10,000 individuals,  $p = .008$ ), suggesting foregone preventive care, with a marginally significant increase in emergency utilization (0.4 visits/month/10,000 individuals,  $p = .08$ ). CONCLUSIONS: These results suggest changes in health care utilization and potentially adverse impacts on employee health in response to job insecurity during the latest recession. This study contributes to our understanding of the impacts of economic crises on the health of the U.S. working population.

Heggebo, K. (2016). "Health Effects of Unemployment in Denmark, Norway and Sweden 2007-2010: Differing Economic Conditions, Differing Results?" *Int J Health Serv* **46**(3): 406-429.

This article investigates short-term health effects of unemployment for individuals in Denmark, Norway, and Sweden during an economic downturn (2007-2010) that hit the Scandinavian countries with diverging strength. The longitudinal part of the European Union Statistics on Income and Living Conditions (EU-SILC) data material is analyzed, and results from generalized least squares estimation indicate that Denmark is the only Scandinavian country in which health status deteriorated among the unemployed. The individual-level (and calendar year) fixed-effect results confirm the negative relationship between unemployment and health status in Denmark. This result is robust across different subsamples, model specifications, and changes in both the dependent and independent variable. Health status deteriorated especially among women and people in prime working age (30-59 years). There is, however, only scant evidence of short-term health effects among the recently unemployed in Norway and Sweden. The empirical findings are discussed in light of: (1) the adequacy of the unemployment insurance system, (2) the likelihood of re-employment for the displaced worker, and (3) selection patterns into and out of employment in the years preceding and during the economic downturn.

Hessel, P. et Avendano, M. (2016). "Economic downturns during the life-course and late-life health: an analysis of 11 European countries." *The European Journal of Public Health* **26**(5): 766-771.

Background: Research has shown that individual socio-economic circumstances throughout life affect health in older ages. However, little attention has been paid to the broad economic context affecting individual's life-chances. This paper examines whether economic downturns experienced during young and mid-adulthood have long-run effects on physical health. Methods: We exploit data on economic fluctuations in the period 1945–2010 in 11 European countries, linked to longitudinal data from three waves of the Survey of Health, Ageing and Retirement in Europe. We estimate a country fixed effect model assessing whether downturns experienced at 5-year intervals between ages 25 and 54 are associated with levels and onset of new limitations with Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) in older age (55–80). Results: Experiencing an economic downturn at ages 45–59 is associated with increased risk of having at least one disability limitation in later-life (odds ratio [OR] for ADL = 1.66, 95% CI [Confidence Interval] 1.24, 2.22; OR for IADL = 1.46, 95% CI 1.10, 1.94). Economic downturns at ages 40–44 and 45–49 also increase the risk of a new functional limitation in later-life (OR for IADL ages 40–44 = 1.20, 95% CI 1.03, 1.40; OR for IADL ages 45–49 = 1.44, CI 1.10–1.88). Economic downturns

experienced around these ages are also associated with significantly greater risks of smoking and excessive alcohol consumption as well as lower incomes in older age. Conclusions: Exposure to an economic downturn at ages 40–49 is associated with poorer health in older ages, possibly by increasing risk of unhealthy behaviours and low incomes persisting into older age.%U <http://eurpub.oxfordjournals.org/content/eurpub/26/5/766.full.pdf>

Kaspersen, S. L., et al. (2016). "Health and unemployment: 14 years of follow-up on job loss in the Norwegian HUNT Study." *The European Journal of Public Health* **26**(2): 312-317.  
<http://eurpub.oxfordjournals.org/content/eurpub/26/2/312.full.pdf>

Background: Many studies have investigated how unemployment influences health, less attention has been paid to the reverse causal direction; how health may influence the risk of becoming unemployed. We prospectively investigated a wide range of health measures and subsequent risk of unemployment during 14 years of follow-up. Methods: Self-reported health data from 36 249 participants in the Norwegian HUNT2 Study (1995–1997) was linked by a personal identification number to the National Insurance Database (1992–2008). Exact dates of unemployment were available. Cox's proportional hazard models were used to estimate hazard ratios (HR) for the association of unemployment with several health measures. Adjustment variables were age, gender, education, marital status, occupation, lifestyle and previous unemployment. Results: Compared to reporting no conditions/symptoms, having  $\geq 3$  chronic somatic conditions (HR 1.78, 95% CI 1.46–2.17) or high symptom levels of anxiety and depression (HR 1.57, 95% CI 1.35–1.83) increased the risk of subsequent unemployment substantially. Poor self-rated health (HR 1.36, 95% CI 1.24–1.51), insomnia (HR 1.19, 95% CI 1.09–1.32), gastrointestinal symptoms (HR 1.17, 95% CI 1.08–1.26), high alcohol consumption (HR 1.17, 95% CI 0.95–1.44) and problematic use of alcohol measured by the CAGE questionnaire (HR 1.32, 95% CI 1.17–1.48) were also associated with increased risk of unemployment. Conclusion: People with poor mental and physical health are at increased risk of job loss. This contributes to poor health amongst the unemployed and highlights the need for policy focus on the health and welfare of out of work individuals, including support preparing them for re-employment.

Lee, B. J., et al. (2016). "Psychosocial factors and psychological well-being: a study from a nationally representative sample of Korean workers." *Ind Health* **54**(3): 237-245.

This study was conducted to examine how each psychosocial factor on working conditions is related to a worker's well-being. Data from the 2011 Korean Working Conditions Survey were analyzed for 33,569 employed workers aged  $\geq 15$  years. Well-being was evaluated through the WHO-5 questionnaire and variables about occupational psychosocial factors were classified into eight categories. The prevalence ratios were estimated using Poisson regression model. Overall, 44.3% of men and 57.4% of women were in a low well-being group. In a univariate analysis, most of the psychosocial factors on working conditions are significantly related with a worker's low well-being, except for insufficient job autonomy in both genders and job insecurity for males only. After adjusting for sociodemographic and structural factors on working conditions, job dissatisfaction, lack of reward, lack of social support, violence and discrimination at work still showed a statistically significant association with a worker's low well-being for both genders. We found that psychosocial working conditions were associated with the workers' well-being.

Martin Bassols, N. et Vall Castello, J. (2016). "Effects of the Great Recession on Drugs Consumption in Spain." *Economics and Human Biology* **22**: 103-116.  
<http://www.sciencedirect.com/science/journal/1570677X>

This paper presents evidence on how the consumption of legal and illegal drugs has changed in response to the Great Recession in Spain. We use a large scale survey from 2005 to 2011 to analyze the association between changes in local economic conditions and drug consumption among individuals aged 15-64. Although Spain was one of the countries hardest hit by the economic downturn, the crisis was unevenly felt across the country. Therefore, we exploit this difference in unemployment rates across provinces to identify the effects of business cycle variations on the consumption of legal and illegal drugs. To the best of our knowledge, this is the first study to find a relation between the deterioration of local economic conditions and a strong increase in the consumption of marijuana and cocaine. We also report a decrease in alcohol consumption but a significant escalation in abusive smoking behavior (smoking every day). We believe that these findings are important not only for the potential negative implications at the individual level but also for the costs to society as a whole.

Maruthappu, M., et al. (2016). "Economic downturns, universal health coverage, and cancer mortality in high-income and middle-income countries, 1990–2010: a longitudinal analysis." *The Lancet*(Ahead of pub).

<http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736%2816%2900577-8.pdf>

The global economic crisis has been associated with increased unemployment and reduced public-sector expenditure on health care (PEH). We estimated the effects of changes in unemployment and PEH on cancer mortality, and identified how universal health coverage (UHC) affected these relationships.

Michaud, P.-C., et al. (2016). "The Effect of Job Loss on Health: Evidence from Biomarkers." *Labour Economics* **41**: 194-203.

<http://www.sciencedirect.com/science/journal/09275371>

We estimate the effect of job loss on objective measures of physiological dysregulation using biomarker measures collected by the Health and Retirement Study in 2006 and 2008 and longitudinal self-reports of work status. We distinguish between group or individual layoffs, and business closures. Workers who are laid off from their job have lower health as measured by biomarker, whereas workers laid off in the context of a business closure do not. Estimates matching respondents wave-by-wave on self-reported health conditions and subjective job loss expectations prior to job loss, suggest strong effects of layoffs on biomarkers, in particular for glycosylated hemoglobin (HbA1c). A layoff could increase annual mortality rates by 10.3%, consistent with other evidence of the effect of group layoffs on mortality.

Murray, E. T., et al. (2016). "Local area unemployment, individual health and workforce exit: ONS Longitudinal Study." *The European Journal of Public Health* **26**(3): 463-469.

<http://eurpub.oxfordjournals.org/content/eurpub/26/3/463.full.pdf>

Background: In many developed countries, associations have been documented between higher levels of area unemployment and workforce exit, mainly for disability pension receipt. Health of individuals is assumed to be the primary driver of this relationship, but no study has examined whether health explains or modifies this relationship. Methods: We used data from 98 756 Office for National Statistics Longitudinal Study members who were aged 40–69 and working in 2001, to assess whether their odds of identifying as sick/disabled or retired in

2011 differed by local authority area unemployment in 2001, change in local area unemployment from 2001 to 2011 and individual reported health in 2001 (self-rated and limiting long-term illness). Results: Higher local area unemployment and worse self-rated health measures in 2001 were independently related to likelihood of identifying as sick-disabled or retired, compared to being in work, 10 years later, after adjusting for socio-demographic covariates. Associations for local area unemployment were stronger for likelihood of identification as sick/disabled compared to retired in 2011. Associations for changes in local area unemployment from 2001 to 2011 were only apparent for likelihood of identifying as retired. For respondents that identified as sick/disabled in 2011, effects of local area unemployment in 2001 were stronger for respondents who had better self-rated health in 2001. Conclusions: Strategies to retain older workers may be most effective if targeted toward areas of high unemployment. For persons in ill health, local area unemployment interventions alone will not be as efficient in reducing their exit from the workforce.

Otterbach, S. et Sousa-Poza, A. (2016). "Job Insecurity, Employability and Health: An Analysis for Germany across Generations." *Applied Economics* **48**(13-15): 1303-1316.  
<http://www.tandfonline.com/loi/raec20>

In this article, we use 12 waves of the German Socio-Economic Panel (GSOEP) to examine the relationship between job insecurity, employability and health-related well-being. Our results indicate that being unemployed has a strong negative effect on life satisfaction and health. They also, however, highlight the fact that this effect is most prominent among individuals over the age of 40. A second observation is that job insecurity is also associated with lower levels of life satisfaction and health, and this association is quite strong. This negative effect of job insecurity is, in many cases, exacerbated by poor employability.

Probst, T. M., et al. (2016). "Leader-member exchange: Moderating the health and safety outcomes of job insecurity." *J Safety Res* **56**: 47-56.

INTRODUCTION: Job insecurity has been repeatedly linked with poor employee health and safety outcomes. Although research on high quality leader-member exchange (LMX) has demonstrated many beneficial effects, no research to date has examined the extent to which positive LMX might attenuate those adverse health and safety-related consequences of job insecurity. The current study extends research in this area by specifically examining the buffering impact of LMX on the relationship between job insecurity and safety knowledge, reported accidents, and physical health conditions. Furthermore, the study also examines whether positive LMX mitigates the typically seen negative impact of job insecurity on supervisor satisfaction. METHODS: The hypotheses were tested using survey data collected from 212 employees of a mine located in southwestern United States. RESULTS: As predicted, job insecurity was related to lower levels of supervisor satisfaction, more health ailments, and more workplace accidents, and was marginally related to lower levels of safety knowledge. Results indicated that LMX significantly attenuated these observed relationships. CONCLUSIONS: The quality of the dyadic relationship between supervisor and subordinate has a significant impact on the extent to which job insecurity is associated with adverse health and safety outcomes. PRACTICAL APPLICATIONS: Practical implications for supervisor behavior and developing high quality LMX are discussed in light of today's pervasive job insecurity.

Quinlan, M. (2016). The effects of non-standard forms of employment on worker health and safety. Genève Organisation Internationale du Travail: 36.

The past 40 years have witnessed significant changes to work arrangements globally. Overall, the changes have been characterised by less contract duration and job security, more irregular working hours (both in terms of duration and consistency), increased use of third parties (temporary employment agencies), growth of various forms of dependent self-employment (like subcontracting and franchising) and also bogus/informal work arrangements (i.e. arrangements deliberately outside the regulatory framework of labour, social protection and other laws).

Rajani, N. B., et al. (2016). "Job insecurity, financial difficulties and mental health in Europe." Occup Med (Lond).

**BACKGROUND:** The recession has increased job insecurity in the European Union (EU) which may result in higher levels of psychological distress, burnout and anxiety. **AIMS:** To investigate the association of job insecurity and financial difficulties with mental health in 27 member states of the EU and to explore the moderating effect of having financial difficulties on the relationship between job insecurity and mental health. **METHODS:** The sample consisted of employed people from 27 European countries where the Eurobarometer survey (73.2 wave, 2010) was administered by the European Commission. Mental well-being and psychological distress were measured using the Vitality and Mental Health Index (MHI-5) subscales from the Short-Form 36-item health survey (SF-36v2). Linear regression including an interaction term was used to test the underlying factors in this study. **RESULTS:** Among the 12594 respondents, experiencing job insecurity was associated with lower Vitality [beta = -3.82, 95% confidence interval (CI) -5.29 to -2.36] and MHI-5 (beta = -3.48, 95% CI -4.91 to -2.04). Similarly, having financial difficulties was significantly correlated with lower Vitality (beta = -8.65, 95% CI -12.07 to -5.24) and MHI-5 (beta = -11.51, 95% CI -15.08 to -7.94). However, having financial difficulties did not moderate the relationship between job insecurity and both mental health scales. **CONCLUSIONS:** This study highlights the negative effect of job insecurity and financial difficulties on mental health in the EU. Support to employees facing job security issues should be a priority regardless of the financial circumstances.

Sameem, M. (2016). Changes in Health and Behavior during the Business Cycle, Southern Illinois University. **Ph.D.**

This dissertation considers to what extent changes in the unemployment rate--a proxy for the business cycle--drives changes in mortality and crime. I use a panel of U.S. counties from 1990 to 2013. I allow changes in the unemployment rate to have different effects upon mortality / crime in large versus small counties as well as between increases versus decreases in the unemployment rate. My results show great nuance along both these dimensions, suggesting that the effects of the business cycle are more subtle than what previous studies report. These results also give one greater insight into what factors could be driving these effects of the business cycle.

Sarti, S. et Zella, S. (2016). "Changes in the labour market and health inequalities during the years of the recent economic downturn in Italy." Soc Sci Res **57**: 116-132.  
<https://www.ncbi.nlm.nih.gov/pubmed/26973035>

There is widespread concern that episodes of unemployment and unstable working conditions adversely affect health. We add to the debate by focusing on the relationship between work trajectory and the self-reported health of Italian men and women during the present economic downturn. Relying on Italian data in the EU-SILC project (from 2007 to

2010), our sample includes all individuals aged 30 to 60 in 2010, and uses multivariate binomial regression models for preliminary analyses and the Structural Equations modelling (SEM) to observe the cumulative effects of health status according to different job trajectories. Our main findings show similar pictures for men and women. Individuals who are unemployed, ejected or in precarious occupational positions have a higher risk of worsening their health status during these years.

Schiele, V. et Schmitz, H. (2016). "Quantile Treatment Effects of Job Loss on Health." Journal of Health Economics **49**: 59-69.

<http://www.sciencedirect.com/science/journal/01676296>

Studies on health effects of job loss mostly estimate mean effects. We argue that the effects might differ over the distribution of the health status and use quantile regression methods to provide a more complete picture. To take the potential endogeneity of job loss into account, we estimate quantile treatment effects where we rely on job loss due to plant closures. We find that the effect of job loss indeed varies across the mental and physical health distribution. Job loss due to plant closures affects physical health adversely for individuals in the middle and lower part of the health distribution while those in best physical condition do not seem to be affected. The results for mental health, though less distinct, point in the same direction. We find no effects on BMI.

Thuilliez, J. (2016). 'Recessions, healthy no more?': A note on Recessions, Gender and Mortality in France. CES Working Paper; 2016.08. Paris Centre d'économie de la Sorbonne: 31, tabl.

<ftp://mse.univ-paris1.fr/pub/mse/CES2016/16008.pdf>

This study uses aggregate panel data on 96 French départements from 1982 to 2012 to investigate the relationship between macroeconomic conditions, gender and mortality. I use previously employed panel data methods, based on mortality variation across French départements and years. The novelty is to analyze the effect of gender-specific unemployment on gender-specific mortality. Within this "area-gender approach", I give a particular attention to gender-cause-specific mortality such as prostate cancer, maternal mortality, female breast cancer, cervical cancer and ovarian cancer in addition to other cause-specific mortality. The analysis is undertaken for several age-groups, several time windows and different geographical aggregates of unemployment. The results reveal that the relationship between unemployment and mortality in France is weak and confirm recent conclusions from U.S. state-level analysis by Ruhm [Ruhm, C.J., 2015. Recessions, Healthy no more?. *Journal of Health Economics* 42, 17{28}].

Toge, A. G. (2016). "Health Effects of Unemployment in Europe During the Great Recession: The Impact of Unemployment Generosity." Int J Health Serv **46**(4): 614-641.

Social and economic security could be particularly important for health among the unemployed. Nevertheless, knowledge is still lacking as to whether and how different policy contexts affect health when people move into unemployment. This article investigates whether and to what degree the unemployment generosity explains why individual health effects of unemployment vary across Europe. The 2008-2011 longitudinal panel of the European Union statistics on income and living conditions (EU-SILC) and fixed-effects models are used to estimate the individual effects of unemployment on self-rated health (SRH). Social spending on unemployment is used as a proxy for unemployment generosity. The results show that unemployment generosity is associated with reduced negative effects of unemployment on SRH. For every increase in adjusted purchasing power standard spending,

the negative effect of unemployment on SRH is reduced by 0.003 (SE = 0.001) and the change in SRH is improved by 0.002 (SE = 0.001) for each year following the transition, after controlling for time-variant confounders at the individual level and unemployment rate at the macro level. The association between spending on unemployment and cross-national differences in individual health changes that occur as people enter unemployment provides a robust indication of the mitigating health effects of unemployment generosity.

Tsou, M.-W., et al. (2016). "The Effects of Job Displacement on Wage and Health. (In Chinese. With English summary.)" *Academia Economic Papers* **44**(2): 127-169.

<http://www.econ.sinica.edu.tw/english/content/periodicals/list/2013093010101596577/>

Based on a sample of displaced workers and their non-displaced siblings from Taiwan, we use difference-in-differences with family fixed effect approach to examine the impacts of job loss on wages and health. The main contribution of this study is to use non-displaced siblings of displaced workers as a control group, which enables us to control the unobserved genetic and family background characteristics and thereby mitigate the endogeneity problem of displacement. The monthly wage of displaced male workers reduces 5% within 1-2 years after plant closure, compared with that of their non-displaced brothers, and the effect is persistent within 2-5 years after displacement. In contrast, no significant wage loss is found for displaced female workers who were reemployed immediately after plant closure. Overall, the effect of wage reduction is more pronounced for men and lower-educated workers. We do not find evidence that job loss increases the probability of hospitalization. As hospitalization may not be an appropriate proxy for health, the availability of good measures of health status is needed for future research.

Vander Elst, T., et al. (2016). "The effect of job insecurity on employee health complaints: A within-person analysis of the explanatory role of threats to the manifest and latent benefits of work." *J Occup Health Psychol* **21**(1): 65-76.

The current study contributes to the literature on job insecurity by highlighting threat to the benefits of work as an explanation of the effect of job insecurity on health complaints. Building on the latent deprivation model, we predicted that threats to both manifest (i.e., financial income) and latent benefits of work (i.e., collective purpose, social contacts, status, time structure, activity) mediate the relationships from job insecurity to subsequent mental and physical health complaints. In addition, in line with the conservation of resources theory, we proposed that financial resources buffer the indirect effect of job insecurity on health complaints through threat to the manifest benefit. Hypotheses were tested using a multilevel design, in which 3 measurements (time lag of 6 months between subsequent measurements) were clustered within 1,994 employees (in Flanders, Belgium). This allowed for the investigation of within-person processes, while controlling for variance at the between-person level. The results demonstrate that job insecurity was related to subsequent threats to both manifest and latent benefits, and that these threats in turn were related to subsequent health complaints (with an exception for threat to the manifest benefit that did not predict mental health complaints). Three significant indirect effects were found: threat to the latent benefits mediated the relationships between job insecurity and both mental and physical health complaints, and threat to the manifest benefit mediated the relationship between job insecurity and physical health complaints. Unexpectedly, the latter indirect effect was exacerbated by financial resources.

Wang, H., et al. (2016). Money and Credit: Health and Health Inequality during the Great Recession: Evidence from the PSID. *Working paper ; 16-15: 28*, tabl., fig.

[http://www.economics.hawaii.edu/research/workingpapers/WP\\_16-15.pdf](http://www.economics.hawaii.edu/research/workingpapers/WP_16-15.pdf)

We employ granular information on local macro-economic conditions from the Panel Study of Income Dynamics to estimate the impact of the Great Recession on health and health-related behaviors. Among working-aged adults, a one percentage point increase in the county-level unemployment rate resulted in a 2.4-3.2% increase in chronic drinking, a 1.8-1.9% decrease in mental health status, and a 7.8-8.9% increase in reports of poor health. Notably, there was heterogeneity in the impact of the recession across socioeconomic groups. Particularly, obesity and overweight rates increased for blacks and high school educated people, while there is weak evidence that they decreased for whites and the college educated. Along some dimensions, the Great Recession may have widened some socioeconomic health disparities in the United States.

Watson, B., et al. (2016). "Economic Insecurity and the Weight Gain of Canadian Adults: A Natural Experiment Approach." *Canadian Public Policy* **42**(2): 115-131.

<http://www.utpjournals.press/loi/cpp>

Using four cycles of longitudinal National Population Health Survey (NPHS) data from 1994 to 2001, we examine whether increasing economic insecurity causes weight gain and obesity. In July 1996, Bill C-12 reduced Canadian unemployment insurance benefits considerably, arguably increasing the economic insecurity of Canadians exposed to unemployment risk. Using a difference-in-difference methodology, this paper compares the change in weight gain of adults 25 to 64 before and after this policy shift. For poorly educated males, the onset of unemployment in the post-policy change era is predicted to increase their body mass index (BMI) by 3.2 points.

Zimmermann, K. F. (2016). "Health Shocks and Well-Being." *Indian Journal of Labour Economics* **59**(1): 155-164.

<http://link.springer.com/journal/volumesAndIssues/41027>

Well-being is the ultimate objective of any labour movement. For long, efforts have concentrated on the provision of jobs and decent work conditions. Recently, however, labour economics has been focussing on health, in general, and mental health, in particular. It is time for labour economists to study this challenging issue. Typically, work is not the cause of poor mental health but, often, its cure. Decent work or earnings may help to avoid or moderate mental health issues. While in advanced societies the social effect of decent work may moderate illness, in developing economies sufficient earnings may pave the way out of natural causes of illness. This paper makes the case that natural arsenic poisoning of water affects the well-being of families negatively and causes substantial loss. Recent research for Bangladesh suggests that showing the symptoms of arsenic poisoning reduces well-being substantially. The impacts on mental health can be avoided or reduced through education and the relaxation of financial constraints on families.

## 2015

Aghion, P., et al. (2015). Creative Destruction and Subjective Wellbeing, National Bureau of Economic Research, Inc, NBER Working Papers: 21069.

<http://www.nber.org/papers/w21069.pdf>

In this paper we analyze the relationship between turnover-driven growth and subjective

wellbeing, using cross-sectional MSA level US data. We find that the effect of creative destruction on wellbeing is (i) unambiguously positive if we control for MSA-level unemployment, less so if we do not; (ii) more positive on future wellbeing than on current well-being; (iii) more positive in MSAs with faster growing industries or with industries that are less prone to outsourcing; (iv) more positive in MSAs within states with more generous unemployment insurance policies.

Arampatzi, E., et al. (2015). "Financial Distress and Happiness of Employees in Times of Economic Crisis." *Applied Economics Letters* **22**(1-3): 173-179.

<http://www.tandfonline.com/loi/rael20>

Using data for 28 European countries for the period 2008 to 2012, we examine whether employed individuals are affected by the economic crisis. We provide robust evidence that unfavourable macroeconomic conditions are negatively associated with the life satisfaction of employees. In addition, we find that higher levels of regional unemployment and inflation are predominantly associated with lower levels of life satisfaction for employees who are in a bad financial situation or who expect that their future financial situation will be worse. By contrast, employed people who do well financially and who have good prospects are not affected by the crisis.

Bharadwaj, P., et al. (2015). Health and Unemployment during Macroeconomic Crises, National Bureau of Economic Research, Inc, NBER Working Papers: 21353.

<http://www.nber.org/papers/w21353.pdf>

This paper shows that health is an important determinant of labor market vulnerability during large economic crises. Using data on adults during Sweden's unexpected economic crisis in the early 1990s, we show that early and later life health are important determinants of job loss after the crisis, but not before. Adults who were born with worse health (proxied by birth weight) and those who experience hospitalizations (and especially so for mental health related issues) in the pre-crisis period, are much more likely to lose their jobs and go on unemployment insurance after the crisis. These effects are concentrated in the private sector that happened to be more affected by the crisis. The results hold while controlling for individual education and occupational sorting prior to the crisis, and for controlling for family level characteristics by exploiting health differences within twin pairs. We conclude that poor health (both in early life and as adults) is an important indicator of vulnerability during economic shocks.

Bharadwaj, P., et al. (2015). Health and Unemployment during Macroeconomic Crises. *IZA Discussion Paper* ; 9174. Bonn IZA: 38 , tab., graph., fig.

<http://ftp.iza.org/dp9174pdf>

This paper shows that health is an important determinant of labor market vulnerability during large economic crises. Using data on adults during Sweden's unexpected economic crisis in the early 1990s, we show that early and later life health are important determinants of job loss after the crisis, but not before. Adults who were born with worse health (proxied by birth weight) and those who experience hospitalizations (and especially so for mental health related issues) in the pre-crisis period, are much more likely to lose their jobs and go on unemployment insurance after the crisis. These effects are concentrated in the private sector that happened to be more affected by the crisis. The results hold while controlling for individual education and occupational sorting prior to the crisis, and for controlling for family level characteristics by exploiting health differences within twin pairs. We conclude that poor

health (both in early life and as adults) is an important indicator of vulnerability during economic shocks.

Binder, M. et Coad, A. (2015). "Heterogeneity in the Relationship between Unemployment and Subjective Wellbeing: A Quantile Approach." *Economica* **82**(328): 865-891.

Unemployment has been robustly shown to strongly decrease subjective wellbeing. Using panel quantile regression techniques, we analyse to what extent the negative impact of unemployment varies along the (conditional) subjective wellbeing distribution. In our analysis of British Household Panel Survey data (1996-2008), we find that individuals with high life satisfaction suffer less from becoming unemployed. A similar but stronger effect is found for a broad mental wellbeing variable (GHQ-12). Higher wellbeing seems to act like a safety net when becoming unemployed. We explore these findings by examining the heterogeneous unemployment effects over the conditional quantiles of various life domain satisfactions.

Bloemen, H., et al. (2015). Job Loss, Firm-Level Heterogeneity and Mortality: Evidence from Administrative Data. Amsterdam Tinbergen Institute: 36, tabl., fig.

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2660080](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2660080)

This paper estimates the effect of job loss on mortality for older male workers with strong labor force attachment. Using Dutch administrative data, we find that job loss due to sudden firm closure increased the probability to die within five years by a sizable 0.60 percentage points. Importantly, this effect is estimated using a model that controls for firm-level worker characteristics, such as firm-level average mortality rates for mortality during the four years prior to the year of observation. On the mechanism driving the effect of job loss on mortality, we provide evidence for an effect running through stress and changes in life style.

Clemens, T., et al. (2015). "What is the effect of unemployment on all-cause mortality? A cohort study using propensity score matching." *Eur J Public Health* **25**(1): 115-121.

<http://eurpub.oxfordjournals.org/content/25/1/115.long>

**BACKGROUND:** There is a strong association between unemployment and mortality, but whether this relationship is causal remains debated. This study utilizes population-level administrative data from Scotland within a propensity score framework to explore whether the association between unemployment and mortality may be causal. **METHODS:** The study examined a sample of working men and women aged 25-54 in 1991. Subsequent employment status in 2001 was observed (in work or unemployed) and the relative all-cause mortality risk of unemployment between 2001 and 2010 was estimated. To account for potential selection into unemployment of those in poor health, a propensity score matching approach was used. Matching variables were observed prior to unemployment and included health status up to the year of unemployment (hospital admissions and self-reported limiting long-term illness), as well as measures of socioeconomic position. **RESULTS:** Unemployment was associated with a significant all-cause mortality risk relative to employment for men (hazard ratio [HR] 1.85; 95% confidence interval [CI] 1.33-2.55). This effect was robust to controlling for prior health and sociodemographic characteristics. Effects for women were smaller and statistically insignificant (HR 1.51; 95% CI 0.68-3.37). **CONCLUSION:** For men, the findings support the notion that the often-observed association between unemployment and mortality may contain a significant causal component; although for women, there is less support for this conclusion. However, female employment status, as recorded in the census, is more complex than for men and may have served to underestimate any mortality effect of

unemployment. Future work should examine this issue further.

Cooper, D., et al. (2015). "Is Unemployment and Low Income Harmful to Health? Evidence from Britain." *Review of Social Economy* **73**(1): 34-60.

<http://www.tandfonline.com/loi/rrse20>

This study investigates how unemployment and income influence the length of time an individual remains in good health. This is a complex relationship since unemployment or low income deteriorates health but poor health can become a barrier to obtaining higher income or gaining re-employment. Data are from the British Household Panel Survey, using two measures of physical health: an index of mobility problems and a measure of self-assessed health. The results show that unemployment, low income and poor education adversely affect the time that people remain in good health. These results have important implications for public policy, particularly in an age of austerity when social protection mechanisms are under threat. In fact, the results suggest that to improve health and reduce health inequality, more investment needs to be directed at policies that enhance labour force participation, improve education and reduce income inequality.

Currie, J., et al. (2015). "The Great Recession and Mothers' Health." *Economic Journal* **125**(588): F311-346.

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-0297/issues>

We use longitudinal data from the Fragile Families and Child Well-being Study to investigate the impacts of the Great Recession on the health of mothers. We focus on a wide range of physical and mental health outcomes, as well as health behaviour. We find that increases in the unemployment rate decrease self-reported health status and increase smoking and drug use. We also find evidence of heterogeneous impacts. Disadvantaged mothers--African American, Hispanic, less educated and unmarried--experience greater deterioration in their health than advantaged mothers--those who are white, married and college educated.

Drydakis, N. (2015). "The effect of unemployment on self-reported health and mental health in Greece from 2008 to 2013: A longitudinal study before and during the financial crisis." *Soc Sci Med* **128**: 43-51.

<http://www.sciencedirect.com/science/article/pii/S0277953614008338>

The current study uses six annual waves of the Longitudinal Labor Market Study (LLMS) covering the 2008-2013 period to obtain longitudinal estimations suggesting statistically significant negative effects from unemployment on self-reported health and mental health in Greece. The specifications suggest that unemployment results in lower health and the deterioration of mental health during the 2008-2009 period compared with the 2010-2013 period, i.e., a period in which the country's unemployment doubled as a consequence of the financial crisis. Unemployment seems to be more detrimental to health/mental health in periods of high unemployment, suggesting that the unemployment crisis in Greece is more devastating as it concerns more people. Importantly, in all specifications, comparable qualitative patterns are found by controlling for unemployment due to firm closure, which allows us to minimize potential bias due to unemployment-health related reverse causality. Moreover, in all cases, women are more negatively affected by unemployment in relation to their health and mental health statuses than are men. Greece has been more deeply affected by the financial crisis than any other EU country, and this study contributes by offering estimates for before and during the financial crisis and considering causality issues. Because health and mental health indicators increase more rapidly in a context of higher surrounding

unemployment, policy action must place greater emphasis on unemployment reduction and supporting women's employment.

Golden, S. D. et Perreira, K. M. (2015). "Losing jobs and lighting up: Employment experiences and smoking in the Great Recession." *Soc Sci Med* **138**: 110-118.

<https://www.ncbi.nlm.nih.gov/pubmed/26079992>

The Great Recession produced the highest rates of unemployment observed in decades, in part due to particularly high rates of people losing work involuntarily. The impact of these job losses on health is unknown, due to the length of time required for most disease development, concerns about reverse causation, and limited data that covers this time period. We examine associations between job loss, employment status and smoking, the leading preventable cause of death, among 13,571 individuals participating in the 2001-2011 waves of the U.S.-based Panel Study of Income Dynamics. Results indicate that recent involuntary job loss is associated with an average 1.1 percentage point increase in smoking probability. This risk is strongest when people have returned to work, and appears reversed when they leave the labor market altogether. Although some job loss is associated with changes in household income and psychological distress levels, we find no evidence that these changes explain smoking behavior modifications. Smoking prevention programs and policies targeted at displaced workers or the newly employed may alleviate some negative health effects produced by joblessness during the Great Recession.

Green, F. (2015). "Health Effects of Job Insecurity." *IZA World of Labor* **1**.

<http://wol.iza.org/articles/all?sort=date-desc>

Research has shown that job insecurity affects both mental and physical health, though the effects are lower when employees are easily re-employable. The detrimental effects of job insecurity can also be partly mitigated by employers allowing greater employee participation in workplace decision-making in order to ensure fair procedures. But as job insecurity is felt by many more people than just the unemployed, the negative health effects during recessions are multiplied and extend through the majority of the population. This reinforces the need for more effective, stabilising macroeconomic policies.

Gutierrez, A. et Michaud, P. C. (2015). Employer downsizing and older workers' health. Montréal CIRANO: 42 , tabl., fig.

We estimate the effects of employer downsizing on older workers' health outcomes using different approaches to control for endogeneity and sample selection. With the exception of the instrumental variables approach, which provides large imprecise estimates, our results suggest that employer downsizing increases the probability that older workers rate their health as fair or poor; increases the risk of showing symptoms of clinical depression; and increases the risk of being diagnosed with stroke, arthritis, and psychiatric or emotional problems. We find weaker evidence that downsizing increases the risk of showing high levels of C-reactive protein (CRP), a measure of general inflammation. We find that downsizing affects health by increasing job insecurity and stress, but that its effects remain statistically significant after controlling for these pathways, suggesting that other mechanisms such as diminished morale and general demotivation also affect worker health. Our findings suggest that employers ought to consider actions to offset the detrimental health effects of reducing personnel on their remaining (older) workers.

Gutierrez, I. A. et Michaud, P. C. (2015). Employer Downsizing and Older Workers' Health. *IZA*

Discussion Paper ; 9140. Bonn IZA: 45 , tab., graph., fig.  
<http://ftp.iza.org/dp9140.pdf>

This study estimates the effects of employer downsizing on older workers' health outcomes using different approaches to control for endogeneity and sample selection. With the exception of the instrumental variables approach, which provides large imprecise estimates, the results suggest that employer downsizing increases the probability that older workers rate their health as fair or poor; increases the risk of showing symptoms of clinical depression; and increases the risk of being diagnosed with stroke, arthritis, and psychiatric or emotional problems. We find weaker evidence that downsizing increases the risk of showing high levels of C-reactive protein (CRP), a measure of general inflammation. The analysis finds that downsizing affects health by increasing job insecurity and stress, but that its effects remain statistically significant after controlling for these pathways, suggesting that other mechanisms such as diminished morale and general demotivation also affect worker health. The findings suggest that employers ought to consider actions to offset the detrimental health effects of reducing personnel on their remaining (older) workers.

Heggebo, K. (2015). "Unemployment in Scandinavia during an economic crisis: cross-national differences in health selection." Soc Sci Med **130**: 115-124.

Are people with ill health more prone to unemployment during the ongoing economic crisis? Is this health selection more visible among people with low education, women, or the young? The current paper investigates these questions in the Scandinavian context using the longitudinal part of the EU-SILC data material. Generalized least squares analysis indicates that people with ill health are laid off to a higher degree than their healthy counterparts in Denmark, but not in Norway and Sweden. Additionally, young individuals (<30 years) with ill health have a higher probability of unemployment in both Norway and Sweden, but not in Denmark. Neither women with ill health, nor individuals with low educational qualifications and ill health, are more likely to lose their jobs in Scandinavia. Individual level (and calendar year) fixed effects analysis confirms the existence of health selection out of employment in Denmark, whereas there is no suggestion of health selection in Sweden and Norway, except among young individuals. This finding could be related to the differing labor market demand the three Scandinavian countries have experienced during and preceding the study period (2007-2010). Another possible explanation for the cross-national differences is connected to the Danish "flexicurity" model, where the employment protection is rather weak. People with ill health, and hence more unstable labor market attachment, could be more vulnerable in such an arrangement.

Huijts, T., et al. (2015). "The impacts of job loss and job recovery on self-rated health: testing the mediating role of financial strain and income." The European Journal of Public Health **25**(5): 801-806.

<http://eurpub.oxfordjournals.org/eurpub/25/5/801.full.pdf>

Background: Is regaining a job sufficient to reverse the harmful impacts on health of job loss during the Great Recession? We tested whether unemployed persons who found work within 1 year of job loss experienced a full recovery of their health. Additionally, we tested the mediating role of financial strain and household income. Methods: Linear regression models were used to assess the effects of job loss and recovery on self-rated health using the longitudinal EU-SILC, covering individuals from 27 European countries. We constructed a baseline of employed persons (n = 70 611) in year 2007. We evaluated income and financial strain as potential mediating factors. Results: Job loss was associated with worse self-rated

health in both men ( $\beta = 0.12$ , 95%CI: 0.09–0.15) and women ( $\beta = 0.13$ , 95%CI: 0.10–0.16). Financial strain explains about one-third of the association between job loss and health, but income did not mediate this relation. Women who regained employment within 1 year after job loss were found to be similarly healthy to those who did not lose jobs. In contrast, men whose employment recovered had an enduring health disadvantage compared with those who had not lost jobs ( $\beta = 0.11$ , 95%CI: 0.05–0.16). Unemployment cash benefits mitigated financial strain but were too low to substantially reduce perceived financial strain among men. Conclusions: Men and women's health appears to suffer equally from job loss but differs in recovery. For men, employment recovery was insufficient to alleviate financial strain and associated health consequences, whereas in women regaining employment leads to health recovery.

Janlert, U., et al. (2015). "Length of unemployment and health-related outcomes: a life-course analysis." *Eur J Public Health* **25**(4): 662-667.

**BACKGROUND:** Most previous studies on the effects of length of unemployment on health have focused on the duration of continuous spells of unemployment rather than on the cumulative length of intermittent spells. This study analysed the relationship between the cumulative length of intermittent spells of unemployment and different health-related outcomes using data from a longitudinal study of school leavers. **METHODS:** All pupils who completed compulsory schooling in 1981 in a medium-sized town in northern Sweden (N = 1083) were followed for 14 years with repeated questionnaires including questions about unemployment, health and health behaviour. **RESULTS:** Men tended to react with a steady state or a levelling off of health symptoms with increased unemployment, whereas women showed deteriorating health symptoms. For health behaviour the reverse occurred. Women's health behaviour was less connected with increased unemployment while men's health behaviour tended to deteriorate. **CONCLUSION:** Cumulative length of unemployment is correlated with deteriorated health and health behaviour. Long-term unemployment, even as a result of cumulated shorter employment spells over a number of years should be an urgent target for policy makers.

Laurence, J. (2015). "(Dis)placing trust: the long-term effects of job displacement on generalised trust over the adult lifecourse." *Soc Sci Res* **50**: 46-59.

Increasing rates of job displacement (i.e. involuntary job loss from redundancy, downsizing, restructuring) have been suggested to be a key driver of declining macro-levels of generalised trust. This article undertakes the first test of how job displacement affects individuals' tendencies to (dis)trust over the adult lifecourse, using two-waves of the Great Britain National Child Development Study cohort data, on a sample of n=6840 individuals. Applying both lagged dependent variable logistic regression and two-wave change-score models, experiencing job displacement between the ages of 33 and 50 appears to significantly scar individuals' generalised trust, with depressed trust observable at least nine years after the event occurred. However, this effect is dependent on the value an individual places on work: the greater the attachment to employment the stronger the negative effect of displacement. A range of mediators, such as physical health, mental well-being, and personal efficacy, do not appear to account for the effect.

McAllister, A., et al. (2015). "Do 'flexicurity' Policies Work for People With Low Education and Health Problems? A Comparison of Labour Market Policies and Employment Rates in Denmark, The Netherlands, Sweden, and the United Kingdom 1990-2010." *Int J Health Serv* **45**(4): 679-705.  
<https://www.ncbi.nlm.nih.gov/pubmed/26272914>

People with limiting longstanding illness and low education may experience problems in the labor market. Reduced employment protection that maintains economic security for the individual, known as "flexicurity," has been proposed as a way to increase overall employment. We compared the development of labor market policies and employment rates from 1990 to 2010 in Denmark and the Netherlands (representing flexicurity), the United Kingdom, and Sweden. Employment rates in all countries were much lower in the target group than for other groups over the study period. However, "flexicurity" as practiced in Denmark, far from being a "magic bullet," appeared to fail low-educated people with longstanding illness in particular. The Swedish policy, on the other hand, with higher employment protection and higher economic security, particularly earlier in the study period, led to higher employment rates in this group. Findings also revealed that economic security policies in all countries were eroding and shifting toward individual responsibility. Finally, results showed that active labor market policies need to be subcategorized to better understand which types are best suited for the target group. Increasing employment among the target group could reduce adverse health consequences and contribute to decreasing inequalities in health.

Meneton, P., et al. (2015). "Unemployment is associated with high cardiovascular event rate and increased all-cause mortality in middle-aged socially privileged individuals." Int Arch Occup Environ Health **88**(6): 707-716.

**PURPOSE:** To assess prospectively the association between employment status and cardiovascular health outcomes in socially privileged individuals. **METHODS:** The incidence of fatal and non-fatal cardiovascular events and all-cause mortality rate were monitored during 12 years in a national sample of 5,852 French volunteers, aged 45-64 years, who were free of cardiovascular disease or other overt disease at baseline. The association between health outcomes and employment status was tested using Cox proportional modelling with adjustment for confounding factors. **RESULTS:** Compared to randomly selected individuals, these volunteers were characterized by higher education level and socio-economic status and lower cardiovascular risk and mortality rate. A total of 242 cardiovascular events (3.5 events per 1,000 person-years) and 152 deaths from all causes (2.2 deaths per 1,000 person-years) occurred during follow-up. After adjustment for age and gender, both cardiovascular event risk [HR (95% CI) 1.84 (1.15-2.83),  $p = 0.01$ ] and all-cause mortality [2.79 (1.66-4.47),  $p = 0.0002$ ] were increased in unemployed individuals compared to workers. These poor health outcomes were observed to the same extent after further adjustment for clinical, behavioural and socio-demographic characteristics of individuals at baseline [HR (95% CI) 1.74 (1.07-2.72),  $p = 0.03$  and 2.89 (1.70-4.69),  $p = 0.0002$ , respectively]. In contrast, neither cardiovascular event risk nor all-cause mortality was significantly increased in retired individuals compared to workers after adjustment for confounding factors. **CONCLUSIONS:** These results support the existence of a link between unemployment and poor cardiovascular health and suggest that this link is not mediated by conventional risk factors in middle-aged socially privileged individuals.

Michaud, P. C., et al. (2015). The Effect of Job Loss on Health: Evidence from Biomarkers. Montréal CIRANO: 31, tabl., fig.

The effect of job loss on health may play an important role in the development of the SES-health gradient. In this paper, we estimate the effect of job loss on objective measures of physiological dysregulation using longitudinal data from the Health and Retirement Study and biomarker measures collected in 2006 and 2008. We use a variety of econometric

methods to account for selection and reverse causality. Distinguishing between layoffs and business closures, we find no evidence that business closures lead to worse health outcomes. We also find no evidence that biomarker health measures predict subsequent job loss because of business closures. We do find evidence that layoffs lead to diminished health. Although this finding appears to be robust to confounders, we find that reverse causality tends to bias downward our estimates. Matching estimates, which account for self-reported health conditions prior to the layoff and subjective job loss expectations, suggest even stronger estimates of the effect of layoffs on health as measured from biomarkers, in particular for glycosylated hemoglobin (HbA1c) and C-reactive protein (CRP). Overall, we estimate that a layoff could increase annual mortality rates by 9.4%, which is consistent with other evidence of the effect of mass layoffs on mortality.

Nilsson, A. (2015). "Who Suffers from Unemployment? The Role of Health and Skills." IZA Journal of Labor Policy 4.

<http://www.izajolp.com/content>

Unemployment swings have distributional consequences if some groups are hit harder than others. We examine if the sensitivity to local unemployment rates varies by characteristics such as health, cognitive ability and non-cognitive ability. Data on these variables come from registers covering the entire Swedish population of males. We show that variations in the unemployment rate are associated with larger variations for those with poor health or with a low non-cognitive ability. This pattern is found both among young and older individuals. The employment of the lower-educated also varies more with variations in the unemployment rate, but only among younger workers.

Reichert, A. R., et al. (2015). "Self-Perceived Job Insecurity and the Demand for Medical Rehabilitation: Does Fear of Unemployment Reduce Health Care Utilization?" Health Economics 24(1): 8-25.

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-1050/issues>

An inverse relationship between job insecurity and sickness absence has been established in the literature, which is explained by employees avoiding to send signals of both poor health and uncooperative behavior towards the employer. In this paper, we focus on whether the same mechanism applies to the demand for medical rehabilitation measures. This question has recently gained much interest in the context of the current public debate on presenteeism. Using county-level unemployment rates as instrument for the employees' fear of job loss on the individual level, we find that an increase in subjective job insecurity substantially decreases the probability of participating in medical rehabilitation.

Ruhm, C. J. (2015). Health Effects of Economic Crises. NBER Working Paper Series ; n° 21604. Cambridge NBER: 48 , tabl., fig., annexes.

<http://www.nber.org/papers/w21604>

This analysis summarizes prior research and uses national, state and county level data from the United States from 1976-2013 to examine whether the mortality effects of economic crises differ in kind from those of the more typical fluctuations. The tentative conclusion is that economic crises affect mortality rates (and presumably other measures of health) in the same way as less severe downturns: namely, they lead to improvements in physical health. The effects of severe national recessions in the United States, appear to have a beneficial effect on mortality that is roughly twice as strong as that predicted due to the elevated unemployment rates alone while the higher predicted rate of suicides during typical periods

of economic weakness is approximately offset during severe recessions. No consistent pattern is obtained for more localized economic crises occurring at the state level – some estimates suggest larger protective mortality effects while others indicate offsetting deleterious consequences.

Schaller, J. et Stevens, A. H. (2015). "Short-Run Effects of Job Loss on Health Conditions, Health Insurance, and Health Care Utilization." *Journal of Health Economics* **43**: 190-203.  
<http://www.sciencedirect.com/science/journal/01676296>

Job loss in the United States is associated with reductions in income and long-term increases in mortality rates. This paper examines the short-run changes in health, health care access, and health care utilization after job loss that lead to these long-term effects. Using a sample with more than 10,000 individual job losses and longitudinal data on a wide variety of health-related outcomes, we show that job loss results in worse self-reported health, activity limitations, and worse mental health, but is not associated with statistically significant increases in a variety of specific chronic conditions. Among the full sample of workers, we see reductions in insurance coverage, but little evidence of reductions in health care utilization after job loss. Among the subset of displaced workers with chronic conditions and those for whom the lost job was their primary source of insurance we do see reductions in doctor's visits and prescription drug usage.

Schon, M. (2015). *Unemployment, Sick Leave and Health*, Leibnitz : GBW  
[http://econstor.eu/bitstream/10419/113013/1/VfS\\_2015\\_pid\\_444.pdf](http://econstor.eu/bitstream/10419/113013/1/VfS_2015_pid_444.pdf)

This paper studies the relationship between sick leave, income and unemployment. In particular, it investigates this relationship under the generous German sick leave regulation of 100% wage replacement, i.e., in an environment where workers do not bear any direct costs from missing work due to sickness. Using information from the German Socioeconomic Panel (GSOEP) it identifies three stylized facts of sick leave in Germany. First, sick days show a strong pro-cyclical pattern. Second, average use of sick days is hump-shaped over income quintiles. Third, the number of sick days is a strong predictor of becoming unemployed. Using this micro-evidence I develop a structural model that rationalizes these facts. It argues that in absence of direct costs of sick leave the fear of future unemployment is the main driving force restraining sick leave. I then use the model to do counterfactual policy analysis.

Sigursteinsdottir, H. et Rafnsdottir, G. L. (2015). "Sickness and sickness absence of remaining employees in a time of economic crisis: a study among employees of municipalities in Iceland." *Soc Sci Med* **132**: 95-102.

This article focuses on sickness and sickness absence among employees of 20 municipalities in Iceland who remained at work after the economic crisis in October 2008. The aim was to examine the impact of economic crisis on sickness and sickness absence of "survivors" working within the educational system (primary school teachers and kindergarten teachers) and the care services (elderly care and care of disabled people) operated by the municipalities. The study was based on mixed methods research comprising a balanced panel data set and focus groups. An online survey conducted three times among 2356 employees of 20 municipalities and seven focus group interviews in two municipalities (39 participants). The generalized estimating equations (GEE) were used to analyze the quantitative data, and focused coding was used to analyze the qualitative data. The main finding showed that the economic crisis had negative health implications for the municipal employees. The negative effects grew stronger over time. Employee sickness and sickness absence increased

substantially in both downsized and non-downsized workplaces. However, employees of downsized workplaces were more likely to be sick. Sickness and sickness absence were more common among younger than older employees, but no gender differences were observed. The study demonstrates the importance of protecting the health and well-being of all employees in the wake of an economic crisis, not only those who lose their jobs or work in downsized workplaces. This is important in the immediate aftermath of a crisis, but also for a significant time thereafter. This is of practical relevance for those responsible for occupational health and safety, as most Western countries periodically go through economic crises, resulting in strains on employees.

Theorell, T., et al. (2015). "A systematic review including meta-analysis of work environment and depressive symptoms." *BMC Public Health* **15**: 738.

**BACKGROUND:** Depressive symptoms are potential outcomes of poorly functioning work environments. Such symptoms are frequent and cause considerable suffering for the employees as well as financial loss for the employers. Accordingly good prospective studies of psychosocial working conditions and depressive symptoms are valuable. Scientific reviews of such studies have pointed at methodological difficulties but still established a few job risk factors. Those reviews were published some years ago. There is need for an updated systematic review using the GRADE system. In addition, gender related questions have been insufficiently reviewed. **METHOD:** Inclusion criteria for the studies published 1990 to June 2013: 1. European and English speaking countries. 2. Quantified results describing the relationship between exposure (psychosocial or physical/chemical) and outcome (standardized questionnaire assessment of depressive symptoms or interview-based clinical depression). 3. Prospective or comparable case-control design with at least 100 participants. 4. Assessments of exposure (working conditions) and outcome at baseline and outcome (depressive symptoms) once again after follow-up 1-5 years later. 5. Adjustment for age and adjustment or stratification for gender. Studies filling inclusion criteria were subjected to assessment of 1.) relevance and 2.) quality using predefined criteria. Systematic review of the evidence was made using the GRADE system. When applicable, meta-analysis of the magnitude of associations was made. Consistency of findings was examined for a number of possible confounders and publication bias was discussed. **RESULTS:** Fifty-nine articles of high or medium high scientific quality were included. Moderately strong evidence (grade three out of four) was found for job strain (high psychological demands and low decision latitude), low decision latitude and bullying having significant impact on development of depressive symptoms. Limited evidence (grade two) was shown for psychological demands, effort reward imbalance, low support, unfavorable social climate, lack of work justice, conflicts, limited skill discretion, job insecurity and long working hours. There was no differential gender effect of adverse job conditions on depressive symptoms **CONCLUSION:** There is substantial empirical evidence that employees, both men and women, who report lack of decision latitude, job strain and bullying, will experience increasing depressive symptoms over time. These conditions are amenable to organizational interventions.

Toge, A. G. et Blekesaune, M. (2015). "Unemployment transitions and self-rated health in Europe: A longitudinal analysis of EU-SILC from 2008 to 2011." *Soc Sci Med* **143**: 171-178.

The Great Recession of 2008 has led to elevated unemployment in Europe and thereby revitalised the question of causal health effects of unemployment. This article applies fixed effects regression models to longitudinal panel data drawn from the European Union Statistics on Income and Living Conditions for 28 European countries from 2008 to 2011, in order to investigate changes in self-rated health around the event of becoming unemployed.

The results show that the correlation between unemployment and health is partly due to a decrease in self-rated health as people enter unemployment. Such health changes vary by country of domicile, and by individual age; older workers have a steeper decline than younger workers. Health changes after the unemployment spell reveal no indication of adverse health effects of unemployment duration. Overall, this study indicates some adverse health effects of unemployment in Europe - predominantly among older workers.

Urbanos-Garrido, R. M. et Lopez-Valcarcel, B. G. (2015). "The Influence of the Economic Crisis on the Association between Unemployment and Health: An Empirical Analysis for Spain." *European Journal of Health Economics* **16**(2): 175-184.

<http://link.springer.com/journal/volumesAndIssues/10198>

**Objectives**--To estimate the impact of (particularly long-term) unemployment on the overall and mental health of the Spanish working-age population and to check whether the effects of unemployment on health have increased or been tempered as a consequence of the economic crisis. **Methods**--We apply a matching technique to cross-sectional microdata from the Spanish Health Survey for the years 2006 and 2011-2012 to estimate the average treatment effect of unemployment on self-assessed health (SAH) in the last year, mental problems in the last year and on the mental health risk in the short term. We also use a differences-in-differences estimation method between the two periods to check if the impact of unemployment on health depends on the economic context. **Results**--Unemployment has a significant negative impact on both SAH and mental health. This impact is particularly high for the long-term unemployed. With respect to the impact on mental health, negative effects significantly worsen with the economic crisis. For the full model, the changes in effects of long-term unemployment on mental problems and mental health risk are, respectively, 0.35 (CI 0.19-0.50) and 0.20 (CI 0.07-0.34). **Conclusions**--Anxiety and stress about the future associated with unemployment could have a large impact on individuals' health. It may be necessary to prevent health deterioration in vulnerable groups such as the unemployed, and also to monitor specific health risks that arise in recessions, such as psychological problems.

## 2014

Arcaya, M., et al. (2014). "Individual and spousal unemployment as predictors of smoking and drinking behavior." *Soc Sci Med* **110**: 89-95.

<https://www.ncbi.nlm.nih.gov/pubmed/24727666>

The effects of unemployment on health behaviors, and substance use in particular, is still unclear despite substantial existing research. This study aimed to assess the effects of individual and spousal unemployment on smoking and alcohol consumption. The study was based on eight waves of geocoded Framingham Heart Study Offspring Cohort data (US) from 1971 to 2008 that contained social network information. We fit three series of models to assess whether lagged 1) unemployment, and 2) spousal unemployment predicted odds of being a current smoker or drinks consumed per week, adjusting for a range of socioeconomic and demographic covariates. Compared with employment, unemployment was associated with nearly twice the subsequent odds of smoking, and with increased cigarette consumption among male, but not female, smokers. In contrast, unemployment predicted a one drink reduction in weekly alcohol consumption, though effects varied according to intensity of consumption, and appeared stronger among women. While spousal unemployment had no effect on substance use behaviors among men, wives responded to husbands' unemployment by reducing their alcohol consumption. We conclude that

individual, and among women, spousal unemployment predicted changes in substance use behaviors, and that the direction of the change was substance-dependent. Complex interactions among employment status, sex, and intensity and type of consumption appear to be at play and should be investigated further.

Baker, P. A. (2014). "Effect of the Great Recession on US and European health: an econometric analysis." *The Lancet* **384**: S14.

Barnay, T. (2014). Health, Work and Working Conditions: A Review of the European Economic Literature. *OECD Economics Department Working Papers, No. 1148*. Paris OCDE: 30.  
[http://www.oecd-ilibrary.org/economics/health-work-and-working-conditions\\_5jz0zb71xhmr-en](http://www.oecd-ilibrary.org/economics/health-work-and-working-conditions_5jz0zb71xhmr-en)

Economists have traditionally been very cautious when studying the interaction between employment and health because of the two-way causal relationship between these two variables: health status influences the probability of being employed and, at the same time, working affects the health status. Because these two variables are determined simultaneously, researchers control endogeneity bias (e.g., reverse causality, omitted variables) when conducting empirical analysis. With these caveats in mind, the literature finds that a favourable work environment and high job security lead to better health conditions. Being employed with appropriate working conditions plays a protective role on physical health and psychiatric disorders. By contrast, non-employment and retirement are generally worse for mental health than employment, and overemployment has a negative effect on health. These findings stress the importance of employment and of adequate working conditions for the health of workers. In this context, it is a concern that a significant proportion of European workers (29%) would like to work fewer hours because unwanted long hours are likely to signal a poor level of job satisfaction and inadequate working conditions, with detrimental effects on health. Thus, in Europe, labour-market policy has increasingly paid attention to job sustainability and job satisfaction. The literature clearly invites employers to take better account of the worker preferences when setting the number of hours worked. Overall, a specific "flexicurity" (combination of high employment protection, job satisfaction and active labour-market policies) is likely to have a positive effect on health.

Berloffo, G. et Modena, F. (2014). "Measuring (In)Security in the Event of Unemployment: Are We Forgetting Someone?" *Review of Income and Wealth* **60**: S77-97.  
<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291475-4991/issues>

In this paper we argue that the consequences of the unemployment risk may be quite different according to the number of household members who depend on the income of the earners. We propose new measures for the aggregate economic (in)security related to employment risk, that take into account the household composition: a per-earner amount corresponding to the aggregate equivalent expected loss, and the inactive-unemployed dependency rate (IUDR), i.e. the average number of persons not in the labor force that each unemployed has to provide for (beyond herself). Both have a simple interpretation but the latter has an advantage in terms of data-requirement. Our results suggest that the overall level of insecurity associated with similar unemployment and replacement rates increases if we consider all the individuals in the households that are potentially affected by this risk. Moreover, the use of net rather than gross incomes and of micro-level data changes quite significantly the relative position of countries in terms of insecurity levels.

Blomqvist, S., et al. (2014). "Increasing health inequalities between women in and out of work - the

impact of recession or policy change? A repeated cross-sectional study in Stockholm county, 2006 and 2010." *International Journal for Equity in Health* **13**(51): 10 , fig, tabl.

<http://www.equityhealthj.com/content/13/1/51>

Introduction: The social insurance system in Sweden underwent extensive change between 2006 and 2010, with the overall aim of making people enter the labour market. At the same time, economic recession hit Sweden. Previous studies suggest that the economic recession particularly affected women. In light of these changes, the aim of this study is to investigate whether health inequalities between employed women and groups outside the labour market changed between 2006 and 2010. A second aim is to examine the explanatory weight of socio-demographic factors vs social and economic conditions. Methods: Data consists of the Stockholm Public Health Surveys (SPHS) for 2006 and 2010. Women aged 18–64 were studied. Through logistic regression, levels of mental distress and limiting longstanding illness (LLI), were compared between four labour market groups; employed and unemployed, sickness absentees and disability pension recipients, at the two time points. Results: Mental distress increased among women in all four labour market groups between 2006 and 2010. Differences in mental distress between those employed and groups outside the labour market also increased. These were explained primarily by social and economic conditions. Levels of LLI were unchanged except among the unemployed. The difference in LLI between the unemployed and the employed was mostly explained by social and economic conditions. In the other groups socio-demographic factors were more salient. For both health outcomes, the weight of social and economic conditions had increased in 2010 compared to 2006. Conclusions: Results indicate that levels of mental distress increased in all groups, but more so among groups outside the labour market, possibly due to stricter eligibility criteria and lower benefit levels, which particularly affected their social and economic conditions.

Caroli, E. et Goddard, M. (2014). Does Job Insecurity Deteriorate Health? A Causal Approach for Europe. *IZA Discussion Paper ; 8299*. Bonn IZA: , tab., graph., fig.

<http://ftp.iza.org/dp8299.pdf>

This paper estimates the causal effect of perceived job insecurity – i.e. the fear of involuntary job loss – on health in a sample of men from 22 European countries. We rely on an original instrumental variable approach based on the idea that workers perceive greater job security in countries where employment is strongly protected by the law, and relatively more so if employed in industries where employment protection legislation is more binding, i.e. in industries with a higher natural rate of dismissals. Using cross-country data from the 2010 European Working Conditions Survey, we show that when the potential endogeneity of job insecurity is not accounted for, the latter appears to deteriorate almost all health outcomes. When tackling the endogeneity issue by estimating an IV model and dealing with potential weak-instrument issues, the health-damaging effect of job insecurity is confirmed for a limited subgroup of health outcomes, namely suffering from headaches or eyestrain and skin problems. As for other health variables, the impact of job insecurity appears to be insignificant at conventional levels.

Cheng, T., et al. (2014). "The Buffering Effect of Coping Strategies in the Relationship between Job Insecurity and Employee Well-Being." *Economic and Industrial Democracy* **35**(1): 71-94.

<http://eid.sagepub.com/archive/>

The modern labour market features job insecurity (JI) as an unavoidable stressor. This study considers the influence of personal coping strategies by combining the conservation of resources with spillover theory. Do coping strategies buffer the negative effects of JI on well-

being (work engagement, marital satisfaction and emotional energy at work and home)? A cybernetic coping scale distinguishes five coping strategies and a survey of 2764 Finnish employees reveals that changing the situation and symptom reduction buffer the negative effect of JI on emotional energy at work and home, respectively. Devaluation and accommodation have buffering tendencies in relation to work engagement and marital satisfaction. Thus, more engaged coping strategies reduce the negative effects of JI on employee well-being. Employees who use disengaged coping (i.e. avoidance) instead are less likely to remain engaged at work, such that frequent use of avoidance coping strengthens the negative relationship between JI and employee well-being.

Colman, G. et Dave, D. (2014). Unemployment and Health Behaviors Over the Business Cycle: a Longitudinal View. NBER Working Paper Series ; n° 20748. Cambridge NBER: 41 ,annexes, tabl.

<http://www.nber.org/papers/w20748>

We examine the first-order internal effects of unemployment on a range of health behaviors during the most recent recession using longitudinal data from the Panel Study of Income Dynamics (PSID) and the National Longitudinal Survey of Youth 1979 (NLSY79). Consistent with prior studies based on cross-sectional data, we find that becoming unemployed is associated with a small increase in leisure-time exercise and in body weight, a moderate decrease in smoking, and a substantial decline in total physical activity. We also find that unemployment is associated with a decline in purchases of fast food. Together, these results imply that both energy consumption and expenditure decline in the U.S. during recessions, the net result being a slight increase in body weight. There is generally considerable heterogeneity in these effects across specific health behaviors, across the intensive and extensive margins, across the outcome distribution, and across gender.

Crespo, S. (2014). "La présence ou l'absence d'emploi a-t-elle une influence sur la relation entre le faible revenu et l'état de santé et le niveau de stress perçus?" Donnees Sociodemographiques En Bref **18**(3): 17-22, tabl.

<http://www.stat.gouv.qc.ca/statistiques/conditions-vie-societe/bulletins/sociodemo-vol18-no3.pdf>

Il est connu que le faible revenu est lié négativement à la santé, car celui-ci peut entraîner notamment de la privation matérielle et de l'insécurité alimentaire. Ainsi, un faible revenu tend à diminuer la prévalence d'un état de santé perçu comme excellent (Bordeleau & Traoré, 2007), ou dans le même ordre d'idées, à augmenter la prévalence d'un état perçu comme moyen ou mauvais (Ferland, 2002). Il est connu aussi que le faible revenu est relié au stress, un maillon dans la chaîne de causalité de la détresse psychologique (Orpana, Lemyre et Gravel, 2009). Dans cet article, on se demande principalement dans quelle mesure la relation entre le faible revenu et la perception de l'état de santé et du niveau de stress est influencée par le fait d'être en emploi ou sans emploi. Autrement dit, le non-emploi amplifie-t-il l'effet négatif déjà observé du faible revenu? Pour répondre à cette question, nous avons retenu les personnes âgées de 25 à 64 ans, soit le noyau principal de la population active sur le marché du travail. L'échantillon est tiré des fichiers maîtres de l'Enquête sur la dynamique du travail et du revenu (EDTR) (résumé de l'auteur).

Helliwell, J. F. et Huang, H. (2014). "New Measures of the Costs of Unemployment: Evidence from the Subjective Well-Being of 3.3 Million Americans." Economic Inquiry **52**(4): 1485-1502.

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291465-7295/issues>

Using two large U.S. surveys, we estimate the effects of unemployment on the subjective

well-being (SWB) of the unemployed and the rest of the population. For the unemployed, the nonpecuniary costs of unemployment are several times as large as those resulting from lower incomes, while the indirect effect at the population level is 15 times as large. For those who are still employed, a one percentage point increase in local unemployment has an impact on well-being roughly equivalent to a 4% decline in household income. We also find evidence indicating that job security is an important channel for the indirect effects of unemployment.

Huber, E. et Stephens, J. D. (2014). "Income Inequality and Redistribution in Post-industrial Democracies: Demographic, Economic and Political Determinants." *Socio-Economic Review* **12**(2): 245-267.

<http://ser.oxfordjournals.org/content/by/year>

This article analyses the determinants of market income distribution and governmental redistribution. The dependent variables are Luxembourg Income Study data on market income inequality (measured by the Gini index) for households with a head aged 25-59 years and the per cent reduction in the Gini index by taxes and transfers. We test the generalizability of the Goldin-Katz hypothesis that inequality has increased in the USA because the country failed to invest sufficiently in education. The main determinants of market income inequality are (in order of size of the effect) family structure (single mother households), union density, deindustrialization, unemployment, employment levels and education spending. The main determinants of redistribution are (in order of magnitude) left government, family structure, welfare state generosity, unemployment and employment levels. Redistribution rises mainly because needs rise (that is, unemployment and single mother households increase), not because social policy becomes more redistributive.

Huber, M. (2014). "Identifying Causal Mechanisms (Primarily) Based on Inverse Probability Weighting." *Journal of Applied Econometrics* **29**(6): 920-943.

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-1255/issues>

This paper demonstrates the identification of causal mechanisms of a binary treatment under selection on observables, (primarily) based on inverse probability weighting; i.e. we consider the average indirect effect of the treatment, which operates through an intermediate variable (or mediator) that is situated on the causal path between the treatment and the outcome, as well as the (unmediated) direct effect. Even under random treatment assignment, subsequent selection into the mediator is generally non-random such that causal mechanisms are only identified when controlling for confounders of the mediator and the outcome. To tackle this issue, units are weighted by the inverse of their conditional treatment propensity given the mediator and observed confounders. We show that the form and applicability of weighting depend on whether some confounders are themselves influenced by the treatment or not. A simulation study gives the intuition for these results and an empirical application to the direct and indirect health effects (through employment) of the US Job Corps program is also provided.

Jonsdottir, S. et Asgeirsdottir, T. L. (2014). "The Effect of Job Loss on Body Weight during an Economic Collapse." *European Journal of Health Economics* **15**(6): 567-576.

<http://link.springer.com/journal/volumesAndIssues/10198>

Studies on the relationship between unemployment and body weight show a positive relationship between Body Mass Index (BMI) and unemployment at the individual level, while aggregate unemployment is negatively related to a population's average BMI. The aim

of this study was to examine the relationship between job loss and changes in body weight following the Icelandic economic collapse of 2008. The analysis relies on a health and lifestyle survey "Heilsa og líoan", carried out by The Public Health Institute of Iceland in the years 2007 and 2009. The sample is a stratified random sample of 9,807 Icelanders between the ages of 18 and 79, with a net response rate of 42.1% for individuals responding in both waves. A linear regression model was used when estimating the relationship between job loss following the economic collapse and changes in body weight. Family income and mental health were explored as mediators. Point estimates indicated that both men and women gain less weight in the event of a job loss relative to those who retained their employment. The coefficients of job loss were only statistically significant for females, but not in the male population. The results from all three models were inconsistent with results from other studies where job loss has been found to increase body weight. However, body weight has been shown to be procyclical, and the fact that the data used were gathered during a severe economic downturn might separate these results from earlier findings.

Latif, E. (2014). "The Impact of Recession on Drinking and Smoking Behaviours in Canada." *Economic Modelling* **42**: 43-56.

<http://www.sciencedirect.com/science/journal/02649993>

Using longitudinal data from the Canadian National Population Health Survey (1994-2009), this study examined the impact of macroeconomic conditions as measured by the provincial unemployment rate on individual alcohol drinking and smoking behaviour. After controlling for unobserved individual specific heterogeneity, the study found that for the overall sample, unemployment rate has a significant positive impact on weekly alcohol consumption as well as on the probability of being a binge drinker. The study further found that unemployment rate has a significant positive impact on the number of cigarettes smoked by the daily smokers. However, unemployment rate has no impact on the probability of being a smoker. The study further examined whether or not there is a gender difference in the impact of unemployment rate on drinking and smoking behaviour. The results suggest that the impact of unemployment rate on drinking and smoking behaviour is more pronounced for males than for females.

Loerbroks, A., et al. (2014). "Job insecurity is associated with adult asthma in Germany during Europe's recent economic crisis: a prospective cohort study." *J Epidemiol Community Health* **68**(12): 1196-1199.

**BACKGROUND:** Job insecurity has been identified as a risk factor for adverse health outcomes. Perceptions of job insecurity steeply increased during Europe's recent economic downturn, which commenced in 2008. The current study assessed whether job insecurity was associated with incident asthma in Germany during this period. **METHODS:** We used prospective data from the German Socio-Economic Panel for the period 2009-2011 (follow-up rate=77.5%, n=7031). Job insecurity was defined by respondents' ratings of the probability of losing their job within the next 2 years and asthma as self-reports of physician-diagnosed asthma. Associations between job insecurity in 2009 (continuous z-scores or categorised variables) and incident asthma by 2011 were assessed using multivariable Poisson regression. **RESULTS:** The risk of asthma increased significantly by 24% with every one SD increase of the job insecurity variable. In dichotomised analyses, a probability of job loss of  $\geq 50\%$  (vs  $< 50\%$ ) was associated with a 61% excess risk of asthma. A trichotomous categorisation of job insecurity confirmed this finding. **CONCLUSIONS:** This study has shown, for the first time, that perceived job insecurity may increase the risk of new onset asthma. Further prospective studies may examine the generalisability of our findings and determine

the underlying mechanisms.

Marcus, J. (2014). "Does Job Loss Make You Smoke and Gain Weight?" *Economica* **81**(324): 626-648. <http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-0335/issues>

This paper estimates the effect of involuntary job loss on smoking behaviour and body weight using German SOEP data. Baseline non-smokers are more likely to start smoking due to job loss, while smokers do not intensify smoking. In particular, single individuals and those with lower health or socioeconomic status prior to job loss exhibit high rates of smoking initiation. Job loss increases body weight slightly, but significantly. The applied regression-adjusted semiparametric difference-in-difference matching strategy is robust against selection on observables and time-invariant unobservables. This paper provides an indirect test that the identifying assumption is not violated.

Michaud, P. C., et al. (2014). The Effect of Job Loss on Health: Evidence from Biomarkers. *IZA Discussion Paper* ; 8587. Bonn IZA: 31 , tabl. <http://ftp.iza.org/dp8587.pdf>

The effect of job loss on health may play an important role in the development of the SES health gradient. In this paper, we estimate the effect of job loss on objective measures of physiological dysregulation using longitudinal data from the Health and Retirement Study and biomarker measures collected in 2006 and 2008. We use a variety of econometric methods to account for selection and reverse causality. Distinguishing between layoffs and business closures, we find no evidence that business closures lead to worse health outcomes. We also find no evidence that biomarker health measures predict subsequent job loss because of business closures. We do find evidence that layoffs lead to diminished health. Although this finding appears to be robust to confounders, we find that reverse causality tends to bias downward our estimates. Matching estimates, which account for self-reported health conditions prior to the layoff and subjective job loss expectations, suggest even stronger estimates of the effect of layoffs on health as measured from biomarkers, in particular for glycosylated hemoglobin (HbA1c) and C-reactive protein (CRP). Overall, we estimate that a layoff could increase annual mortality rates by 9.4%, which is consistent with other evidence of the effect of mass layoffs on mortality.

Oliffe, J. L. et Han, C. S. (2014). "Beyond workers' compensation: men's mental health in and out of work." *Am J Mens Health* **8**(1): 45-53.

The mental health of men is an important issue with significant direct and indirect costs emerging from work-related depression and suicide. Although the merits of men's community-based and workplace mental health promotion initiatives have been endorsed, few programs are mandated or formally evaluated and reported on. Conspicuously absent also are gender analyses detailing connections between masculinities and men's work-related depression and suicide on which to build men-centered mental health promotion programs. This article provides an overview of four interconnected issues, (a) masculinities and men's health, (b) men and work, (c) men's work-related depression and suicide, and (d) men's mental health promotion, in the context of men's diverse relationships to work (including job insecurity and unemployment). Based on the review, recommendations are made for advancing the well-being of men who are in as well as of those out of work.

Otterbach, S. et Sousa-Posa, A. (2014). Job insecurity, employability, and health: An analysis for Germany across generations. *FZID Discussion Paper*; No. 88-2014. Stuttgart University of

Hohenheim.: 27 , tabl.

<http://econstor.eu/bitstream/10419/96151/1/783546017.pdf>

In this paper, we use 12 waves of the German Socio-Economic Panel to examine the relationship between job insecurity, employability and health-related well-being. Our results indicate that being unemployed has a strong negative effect on life satisfaction and health. They also, however, highlight the fact that this effect is most prominent among individuals over the age of 40. A second observation is that job insecurity is also associated with lower levels of life satisfaction and health, and this association is quite strong. This negative effect of job insecurity is, in many cases, exacerbated by poor employability.

Pirani, E. et Salvini, S. (2014). Is temporary employment damaging to health? A longitudinal study on Italian workers. *Disia Working paper; 2014/08*. Firenze Università degli Studi di Firenze: 28 , tabl.

[http://local.disia.unifi.it/wp\\_disia/2014/wp\\_disia\\_2014\\_08.pdf](http://local.disia.unifi.it/wp_disia/2014/wp_disia_2014_08.pdf)

Working conditions have dramatically changed over recent decades in all the countries of European Union: permanent full-time employment characterized by job security and a stable salary is replaced more and more by temporary work, apprenticeship contracts, casual jobs and part-time work. The consequences of these changes on the general well-being of workers and their health represent an increasingly important path of inquiry. We add to the debate by answering the question: are Italian workers on temporary contracts more likely to suffer from poor health than those with permanent jobs? Our analysis is based on a sample of men and women aged 16-64 coming from the Italian longitudinal survey 2007-2010 of the European Union Statistics on Income and Living Conditions. We use the method of inverse-probability-of-treatment weights to estimate the causal effect of temporary work on self-rated health, controlling for selection effects. Our major findings can be summarized as follows: firstly, we show that the negative association between precarious employment and health is not simply due to a selection of healthier individuals in the group of people who find permanent jobs (selection effect), but it results from a causal effect in the work-to-health direction. Secondly, we find that the temporariness of the working status becomes particularly negative for the individual's health when it is prolonged over time. Thirdly, whereas temporary employment does not entail adverse consequences for men, the link between precarious work and health is strongly harmful for Italian women.

Powdthavee, N. (2014). "What Childhood Characteristics Predict Psychological Resilience to Economic Shocks in Adulthood?" *Journal of Economic Psychology* **45**: 84-101.

<http://www.sciencedirect.com/science/journal/01674870>

This paper investigates whether people's psychological resilience to one of the most important economic shocks - job loss - can be predicted using early childhood characteristics. Using a longitudinal data that tracked almost 3000 children into adulthood, we showed that the negative effect of unemployment on mental well-being and life satisfaction is significantly larger for workers who, as adolescents, had a relatively poor father-child relationship. Maternal unemployment, on the other hand, is a good predictor of how individuals react psychologically to future unemployment. Although the results should be viewed as illustrative and more research is needed, the current article provides new longitudinal evidence that psychological resilience to job loss may be determined early on in the life cycle.

Reeves, A., et al. (2014). "Do employment protection policies reduce the relative disadvantage in the

labour market experienced by unhealthy people? A natural experiment created by the Great Recession in Europe." *Soc Sci Med* **121**: 98-108.

Unhealthy persons are more likely to lose their jobs than those who are healthy but whether this is affected by recession is unclear. We asked how healthy and unhealthy persons fared in labour markets during Europe's 2008-2010 recessions and whether national differences in employment protection helped mitigate any relative disadvantage experienced by those in poor health. Two retrospective cohorts of persons employed at baseline were constructed from the European Statistics of Income and Living Conditions in 26 EU countries. The first comprised individuals followed between 2006 and 2008,  $n = 46,085$  (pre-recession) and the second between 2008 and 2010,  $n = 85,786$  (during recession). We used multi-level (individual- and country-fixed effects) logistic regression models to assess the relationship (overall and disaggregated by gender) between recessions, unemployment, and health status, as well as any modifying effect of OECD employment protection indices measuring the strength of policies against dismissal and redundancy. Those with chronic illnesses and health limitations were disproportionately affected by the recession, respectively with a 1.5- and 2.5-fold greater risk of unemployment than healthy people during 2008-2010. During severe recessions ( $>7\%$  fall in GDP), employment protections did not mitigate the risk of job loss (OR = 1.06, 95% CI: 0.94-1.21). However, in countries experiencing milder recessions ( $<7\%$  fall in GDP), each additional unit of employment protection reduced job loss risk (OR = 0.72, 95% CI: 0.58-0.90). Before the recession, women with severe health limitations especially benefited, with additional reductions of 22% for each unit of employment protection (AORfemale = 0.78, 95% CI: 0.62-0.97), such that at high levels the difference in the risk of job loss between healthy and unhealthy women disappeared. Employment protection policies may counteract labour market inequalities between healthy and unhealthy people, but additional programmes are likely needed to protect vulnerable groups during severe recessions.

Rueda, D. (2014). "Dualization, Crisis and the Welfare State." *Socio-Economic Review* **12**(2): 381-407. <http://ser.oxfordjournals.org/content/by/year>

Labour market dualization (an increasing separation between insiders and outsiders) has become an influential feature of many OECD economies since 1980s. This paper argues that dualization mitigates the generosity of the welfare state in a significant way. It also investigates the relationship between dualization and policies that protect and insure against unemployment. The compensating role of social policy is shown to be limited in cases where dualization is more significant. The paper then focuses on the relationship between dualization and the welfare state during the present crisis. It emphasizes the influence of insider-outsider differences on both the nature of unemployment and the responsiveness of social policy during the Great Recession.

Ruokolainen, M., et al. (2014). "Are the most dedicated nurses more vulnerable to job insecurity? Age-specific analyses on family-related outcomes." *J Nurs Manag* **22**(8): 1042-1053.

AIM: To examine the moderating roles of job dedication and age in the job insecurity-family-related well-being relationship. BACKGROUND: As job insecurity is a rather permanent stressor among nurses nowadays, more research is needed on the buffering factors alleviating its negative effects on well-being. METHODS: A total of 1719 Finnish nurses representing numerous health care organisations participated in this cross-sectional study. Moderated hierarchical regression analysis was used to examine the associations. RESULTS: Nurses' younger age and low job dedication operated as protective factors against the

negative effect of high job insecurity on parental satisfaction. The effect of job dedication on family-related well-being was also age-specific: high job dedication protected younger nurses from the negative effect of job insecurity on work-family conflict and parental stress, whereas among older nurses those who reported low job dedication showed better well-being in the presence of high job insecurity. CONCLUSIONS: The most job-dedicated nurses were more vulnerable to job insecurity in relation to parental satisfaction. In addition, high job dedication combined with high age implied more work-family conflict and parental stress in the presence of high job insecurity. IMPLICATIONS FOR NURSING MANAGEMENT: Managers should seek to boost younger nurses' job dedication and to prevent older nurses' over-commitment.

Sanwald, A. et Theurl, E. (2014). Atypical employment and health: A meta-analysis. Working Papers in Economics and Statistics; 2014-15. Innsbruck University of Innsbruck: 33 , tabl., fig.  
<http://eeecon.uibk.ac.at/wopec2/repec/inn/wpaper/2014-15.pdf>

In this meta-analysis we provide new quantitative evidence on the relationship between the characteristics of working contracts and worker's health. We examine 52 studies covering 26 countries in the time period 1984 - 2010 with a combined sample size of 192. We apply a random effects model using odds ratios and their 95\% confidence intervals as measures for the effect size. We distinguish between six types of employment contracts with decreasing security levels (fixed-term, temporary, casual, on-call, daily, no formal contract) and classify the health outcomes into five subgroups (sickness absence, occupational injuries, health-related behavior, mental health and physical health). Furthermore, we control for selected dimensions of the socioeconomic environment of the studies, e.g. the unemployment rate and GDP growth rate. Summary findings show a higher risk of occupational injuries for atypical employees compared to the reference group. Atypical employment increases complaints about mental and physical health and has a negative impact on health-related behavior. Sickness absence works in the opposite direction and permanent employees are more likely to be absent from work. The heterogeneity of the effect sizes between different contracts of atypical employment is low. Effect sizes are country specific and depend on the health outcome indicators. The macroeconomic surrounding - unemployment rate and GDP growth rate - don't cause variation in study results. The 'healthy worker effect' may lead to an overestimation of the impact of workers' atypical employment contract on the health status. More research work which explicitly focuses on the problems of endogeneity, reverse causality and the selection bias is necessary. Furthermore, additional control groups and the employment biography of workers have to be taken into account.

Schaller, J. et Huff, S. T. E. V. E. N. S. A. (2014). Short-run Effects of Job Loss on Health Conditions, Health Insurance, and Health Care Utilization. NBER Working Paper Series ; n° 19884. Cambridge NBER: 33 ,tabl.  
<http://www.nber.org/papers/w19884>

Job loss in the United States is associated with long-term reductions in income and long-term increases in mortality rates. This paper examines the short- to medium-term changes in health, health care access, and health care utilization after job loss that lead to these long-term effects. Using a sample with more than 9800 individual job losses and longitudinal data on a wide variety of health-related measures and outcomes, we show that job loss results in worse self-reported health, including mental health, but is not associated with statistically significant increases in a variety of specific chronic conditions. Among the full sample of workers, we see reductions in insurance coverage, but little evidence of reductions in health care utilization after job loss. Among the subset of displaced workers for whom the lost job

was their primary source of insurance we do see reductions in doctor's visits and prescription drug usage. These results suggest that access to health insurance and care may be an important part of the health effects of job loss for some workers. The pattern of results is also consistent with a significant role for stress in generating long-term health consequences after job loss.

Schaller, J. et Stevens, A. H. (2014). Short-run Effects of Job Loss on Health Conditions, Health Insurance, and Health Care Utilization, National Bureau of Economic Research, Inc, NBER Working Papers: 19884.

<http://www.nber.org/papers/w19884.pdf>

Job loss in the United States is associated with long-term reductions in income and long-term increases in mortality rates. This paper examines the short-to medium-term changes in health, health care access, and health care utilization after job loss that lead to these long-term effects. Using a sample with more than 9800 individual job losses and longitudinal data on a wide variety of health-related measures and outcomes, we show that job loss results in worse self-reported health, including mental health, but is not associated with statistically significant increases in a variety of specific chronic conditions. Among the full sample of workers, we see reductions in insurance coverage, but little evidence of reductions in health care utilization after job loss. Among the subset of displaced workers for whom the lost job was their primary source of insurance we do see reductions in doctor's visits and prescription drug usage. These results suggest that access to health insurance and care may be an important part of the health effects of job loss for some workers. The pattern of results is also consistent with a significant role for stress in generating long-term health consequences after job loss.

Sousa-Ribeiro, M., et al. (2014). "Perceived Quality of the Psychosocial Environment and Well-Being in Employed and Unemployed Older Adults: The Importance of Latent Benefits and Environmental Vitamins." *Economic and Industrial Democracy* 35(4): 629-652.

<http://eid.sagepub.com/archive/>

This study combines two recognized theoretical frameworks in the (un)employment literature--the latent deprivation model and the vitamin model--and aims to better understand the relations between the perceived quality of the psychosocial environment and psychological well-being in older adults. The sample comprised 300 Portuguese adults (aged between 40 and 65), grouped as employed, unemployed engaged in training and unemployed not in training. The employed reported better well-being than the other groups, and the unemployed in training showed lower distress than those who were not. Additionally, features from both frameworks were found to be related to well-being. These findings highlight the merit of taking both theories into account to better understand the well-being of older individuals, and may be useful for the design of interventions aiming to enhance well-being and overcome some of the negative aspects of unemployment.

Van Gool, K. et Pearson, M. (2014). Health, Austerity and Economic Crisis. Assessing the short-term in OECD countries. *OECD Health Working Paper*; 76. Paris OCDE: 51 , tabl., annexes.

[http://www.oecd-ilibrary.org/social-issues-migration-health/health-austerity-and-economic-crisis\\_5jxx71t1z6-en](http://www.oecd-ilibrary.org/social-issues-migration-health/health-austerity-and-economic-crisis_5jxx71t1z6-en)

La crise économique qui a débuté en 2008 a eu d'importantes répercussions pour des millions de personnes, qui ont perdu leur travail ou l'épargne de toute leur vie et se trouvent confrontées à des difficultés financières de longue durée. La crise a également conduit

plusieurs pays de l'OCDE à adopter des mesures d'austérité pour réduire leur déficit public. Le secteur de la santé, comme beaucoup d'autres programmes de protection sociale, a ainsi été soumis à d'importantes restrictions budgétaires et a fait l'objet de réformes de grande ampleur. Suite à l'effet conjugué de la crise économique, des mesures d'austérité et des réformes, les systèmes de santé de nombre de pays de l'OCDE doivent aujourd'hui se réinventer. Ce document passe en revue les retombées de la crise économique sur la santé et les soins de santé. Il fait la synthèse des résultats de diverses publications sur les effets des crises économiques des dernières décennies et décrit les récentes réformes des politiques de santé, en s'intéressant plus particulièrement aux pays les plus touchés. Enfin, il analyse, à partir des Statistiques de l'OCDE sur la santé, les relations empiriques qui existent entre le chômage et l'utilisation, la qualité et l'efficacité des soins de santé. Dans cette optique, il s'interroge sur la question de savoir si les mesures d'austérité ont contribué à atténuer les effets du chômage sur les résultats en matière de santé

## 2013

(2013). Impact of the crisis on working conditions in Europe. Dublin Eurofound: 70 , tabl.

<http://www.eurofound.europa.eu/docs/ewco/tn1212025s/tn1212025s.pdf>

The economic and financial crisis is affecting working conditions across EU Member States and Norway in different ways and scope. Yet the pattern is of less work, reduced overall working time, less overtime, rising job insecurity, less choice for workers, wage freezes and wage cuts. There is also greater work intensity, deterioration of work-life balance, increasing stress at work, greater risk of harassment/bullying, less absenteeism, growth in the informal economy and changes to migration patterns. This report ranks countries by changes in working conditions since the crisis began based on country averages for defined indicators: job insecurity, involuntary temporary employment, involuntary part-time working, net migration, work-life balance, work intensity, absenteeism, work accidents and job satisfaction. Average trends can hide composition effects, while the crisis has not had the same effect on all groups of workers (résumé de l'éditeur).

Adler, M. D. (2013). Happiness, Health, and Leisure: Valuing the Nonconsumption Impacts of Unemployment. *Does Regulation Kill Jobs?* Coglianesi, C., Finkel, A. M. et Carrigan, C., Philadelphia: University of Pennsylvania Press: 150-169.

Antoniou, A.-S. G. et Cooper, C. L. e. (2013). *The Psychology of the Recession on the Workplace*, New Horizons in Management. Cheltenham, U.K. and Northampton, Mass.: Elgar

Eighteen papers explore different dimensions of the psychology of recession and economic stress. Papers discuss well-being among Greeks and immigrants before and after the current financial crisis; socioeconomic adversity and family stressors in relation to school achievement among Greek, Serbian, and Albanian students; the impact of the recession and its aftermath on individual health and well-being; workaholism and psychosocial functioning--individual, family, and workplace perspectives; the mark of recession in the high-tech industry--high stress and low burnout; the adverse effects of recession-related events on the health and well-being of individuals; temporary employment, quality of working life, and well-being; economic recession, job insecurity, and employee and organizational health; the psychology of unemployment--laying off people in a recession; perceiving and responding to job insecurity--the importance of multilevel contexts; unemployment and mental health; the effects of not working--a psychological framework for understanding the experience of job

loss; effects of the recession on psychological contracts between employers and employees; the individual affront the antinomies of the contemporary world; the psychological effects of restructuring; social support in times of economic stress; the dynamism of balancing work and family in a developing society--evidence from Taiwan; and low-income families and occupational health--implications of economic stress for work-family conflict research and practice. Antoniou is Lecturer in Psychology at the University of Athens. Cooper is Distinguished Professor of Organizational Psychology and Health at Lancaster University. Index.

Bender, K. A., et al. (2013). "The temporary and permanent effects of unemployment on mortality in Europe." *International Labour Review* **152**(2): 276-286.

Recent research on the relationship between unemployment and mortality is inconsistent. The statistical methodology used in this study decomposes the effect of unemployment on mortality into temporary and permanent effects and estimates the unemployment–mortality relationship, using aggregate data from 11 European countries for the period 1971–2001. Decomposing the effect of unemployment in this way shows that while the temporary effect of an increase in unemployment is to lower mortality, the permanent effect is to increase it. Importantly, the permanent effect is generally much stronger than the temporary effect. These results hold true for nearly all mortality indicators studied.

Caroli, E. et Godard, M. (2013). Does Job Insecurity Deteriorate Health? A Causal Approach for Europe. *Working paper; 2013-01*. Paris Paris School of economics: 30 , fig., tabl.  
<http://hal-pse.archives-ouvertes.fr/docs/00/78/47/77/PDF/wp201301.pdf>

This paper estimates the causal effect of job insecurity on health in a sample of 22 European countries. We rely on an original instrumental variable approach based on evidence that workers feel more insecure with respect to their job if employed in sectors with a high natural rate of layoff, but relatively less so if they live in a country where employment is strongly protected by the law. Using cross-country data from the 2010 European Working Conditions Survey, we show that when the potential endogeneity of job insecurity is not accounted for, the latter appears to deteriorate almost all health outcomes. When tackling the endogeneity issue, the health-damaging effect of job insecurity is confirmed for a subgroup of health outcomes, namely self-rated health, being sick in the past 12 month, suffering from headaches or eyestrain and depression or anxiety. Job insecurity also appears to deteriorate individual well-being. As for other health variables, the impact of job insecurity appears to be insignificant at conventional levels.

Chowdhury, A., et al. (2013). "The Great Recession, jobs and social crises: policies matter." *International Journal of Social Economics* **40**(3): 220-245.

The purpose of the paper is to review the social consequences of the Great Recession of 2008-2009. In particular, it looks at impacts on the world of work – unemployment, informal and vulnerable employment, working poor and youth unemployment, and on public health – hunger and malnutrition, suicides, domestic violence and child abuse. In all fronts, the Great Recession had serious adverse impacts and morphed into a global social crisis. The situation is made worse due to obsessions with fiscal consolidation in the midst of tepid and uncertain recovery. The paper argues that policies matter and advocates for strengthening social protection and continued stimulus in order to ensure robust recovery.

Clark, A. E. et Georgellis, Y. (2013). "Back to Baseline in Britain: Adaptation in the British Household

Panel Survey." *Economica* **80**(319): 496-512.

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-0335/issues>

We look for evidence of adaptation in wellbeing to major life events using eighteen waves of British panel data. Adaptation to marriage, divorce, birth of child, and widowhood appears to be rapid and complete; this is not so for unemployment. These findings are remarkably similar to those in previous work on German panel data. Equally, the time profiles with life satisfaction as the wellbeing measure are very close to those using a twelve-item scale of psychological functioning. As such, the phenomenon of adaptation may be a general one, rather than being found only in German data or using single-item wellbeing measures.

Couch, K. A., et al. (2013). Economic and Health Implications of Long-Term Unemployment: Earnings, Disability Benefits, and Mortality. *New Analyses of Worker Well-Being*. Polachek, S. W. etTatsiramos, K., Research in Labor Economics, vol. 38. Bingley, U.K.: Emerald; distributed by Turpin Distribution, Biggleswade, U.K.: 259-305.

Daly, M. et Delaney, L. (2013). "The scarring effect of unemployment throughout adulthood on psychological distress at age 50: estimates controlling for early adulthood distress and childhood psychological factors." *Soc Sci Med* **80**: 19-23.

<https://www.ncbi.nlm.nih.gov/pubmed/23415587>

Unemployment is an established predictor of psychological distress. Despite this robust relationship, the long-term impact of unemployment on human welfare has been examined in relatively few studies. In this investigation we test the association between the life-time duration of unemployment over a 34 year period from 1974 to 2008 and psychological distress at age 50 years in a sample of 6253 British adults who took part in the National Child Development Study (NCDS). In addition to adjusting for demographic characteristics, we account for the role of childhood psychological factors, which have been shown to predict adult occupational and mental health outcomes and may determine the connection between unemployment and distress. We find that intelligence and behavioral/emotional problems at age 11 predict both unemployment and psychological distress later in life. Furthermore, as predicted, the duration of unemployment throughout adulthood was associated with elevated levels of psychological distress at age 50, after adjusting for demographic characteristics including labor force status at age 50. The emotional impact of unemployment was only marginally attenuated by the inclusion of childhood factors and early-life distress levels in the analyses. Thus, unemployment may lead to worsening distress levels that persist over time and which cannot be attributed to childhood or early-life well-being or cognitive functioning early in life. Our analysis further supports the idea of psychological scarring from unemployment and the importance of employment outcomes for adult well-being.

Halliday, T. (2013). Unemployment and Mortality: Evidence from the PSID. *Discussion paper; 7157*. Bonn IZA: 31, tabl., fig.

<http://ftp.iza.org/dp7157.pdf>

This paper uses the death file from the Panel Study of Income Dynamics to investigate the relationship between county-level unemployment rates and mortality risk. After partialling out important confounding factors including baseline health status as well as state and industry fixed effects, we show that poor local labor market conditions are associated with higher mortality risk for working-aged men. In particular, it shows that a one percentage point increase in the unemployment rate increases their mortality hazard by 6%. There is

little to no such relationship for people with weaker labor force attachments such as women or the elderly. Our results contribute to a growing body of work that suggests that poor economic conditions pose health risks and illustrate an important contrast with studies based on aggregate data.

Jiang, L., et al. (2013). Perceiving and Responding to Job Insecurity: The Importance of Multilevel Contexts. *The Psychology of the Recession on the Workplace*. Antoniou, A.-S. G. et Cooper, C. L., New Horizons in Management. Cheltenham, U.K. and Northampton, Mass.: Elgar: 176-195.

Jolly, N. A. (2013). "Job Displacement and the Inter-temporal Movement of Workers through the Earnings and Income Distributions." *Contemporary Economic Policy* **31**(2): 392-406.

This paper uses the Panel Study of Income Dynamics to examine how job displacement influences intragenerational earnings and income mobility. Job displacement increases the probability of downward labor earnings mobility for several years after separation occurs. Furthermore, the probability of being in the bottom half of the earnings distribution increases significantly, not only in the year of displacement, but also for several years afterwards. However, after considering additional measures of financial well-being (income from other family members and government transfer payments), the short- and long-term impact of displacement on movements throughout the distribution is reduced.

Maggiore, C., et al. (2013). "The role of career adaptability and work conditions on general and professional well-being." *Journal of Vocational Behavior* **83**(3): 437-449.

Modrek, S. et Cullen, M. R. (2013). "Health consequences of the 'Great Recession' on the employed: Evidence from an industrial cohort in aluminum manufacturing." *Soc Sci Med* **92**: 105-113.

While the negative effects of unemployment have been well studied, the consequences of layoffs and downsizing for those who remain employed are less well understood. This study uses human resources and health claims data from a large multi-site fully insured aluminum company to explore the health consequences of downsizing on the remaining workforce. We exploit the variation in the timing and intensity of layoff to categorize 30 plants as high or low layoff plants. Next, we select a stably employed cohort of workers with history of health insurance going back to 2006 to 1) describe the selection process into layoff and 2) explore the association between the severity of plant level layoffs and the incidence of four chronic conditions in the remaining workforce. We examine four health outcomes: incident hypertension, diabetes, asthma/COPD and depression for a cohort of approximately 13,000 employees. Results suggest that there was an increased risk of developing hypertension for all workers and an increased risk of developing diabetes for salaried workers that remain at the plants with the highest level of layoffs. The hypertension results were robust to a several specification tests. In addition, the study design selected only healthy workers, therefore our estimates are likely to be a lower bound and suggest that adverse health consequences of the 2007-2009 recession may have affected a broader proportion of the population than previously expected

Nichols, A., et al. (2013). Consequences of Long-Term Unemployment. Washington The Urban Institute: 17.

<http://www.urban.org/uploadedpdf/412887-consequences-of-long-term-unemployment.pdf>

In this paper, we discuss various channels through which longer unemployment duration

might influence outcomes for the unemployed. The discussion of prior research that follows shows that direct evidence for many of these channels is very underdeveloped, somewhat surprisingly. Still, there are plausible channels through which longer unemployment duration might result in worse outcomes, most notably loss of human or social capital. We also discuss evidence for how job loss itself affects various outcomes. Our review shows that most of the literature finds significant negative effects in many areas, starting with lower reemployment wages of those directly affected by job loss, and continuing on to health, family structure, children's well-being, and whole communities. The measured impacts of unemployment can increase with the duration of unemployment. Cumulative loss of income increases as unemployment continues, but expected wages at reemployment also fall, leading to a permanent loss of future income. Many authors have documented long-run losses of wages following an unemployment event in addition to many other long-run impacts on measured well-being

Pahkin, K., et al. (2013). "Dismissals - a major concern, but only one among others?" *Ind Health* **51**(1): 134-141.

The Finnish forest industry has undergone extensive transition in recent years. This study investigates the effect of restructuring on the well-being of blue-collar employees who continued working in the organization after the changes. All six factories selected for the study were in the process of restructuring between baseline and the follow-up survey. The factories were grouped according to personnel reduction (dismissals): Change group 1 - no dismissals; and Change group 2 - dismissals. The majority of the analyses were carried out using longitudinal data (n=382). The associations between the changes in personnel and functional and psychological well-being were analysed using ANCOVA (adjusted for age, gender, education, and outcome at baseline). In both change groups the level of functional well-being improved after restructuring, but the level of psychological well-being decreased. The content of the changes, regardless of whether they involved personnel dismissals, did not affect the magnitude of the decrease in psychological well-being. It seems that the effect of restructuring on the psychological well-being of employees working in the restructuring organization is considerable, even when no dismissals are involved. The impact of change on functional well-being seems to be different.

Popovici, I. et French, M. T. (2013). "Does Unemployment Lead to Greater Alcohol Consumption?" *Industrial Relations* **52**(2): 444-466.

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-232X/issues>

Using panel data from Waves 1 and 2 of the NESARC, we estimate gender-specific effects of changes in employment status on overall alcohol consumption, binge-drinking episodes, and a diagnosis of alcohol abuse and/or dependence. We employ various fixed-effects models to address potential bias from unobserved and time-invariant individual heterogeneity. All results show a positive and significant effect of unemployment on drinking behaviors, and the findings are robust to numerous sensitivity tests. Perhaps, macroeconomic policy decisions intended to stimulate the economy during economic downturns should also consider the avoided personal costs and externalities associated with alcohol misuse.

Reine, I., et al. (2013). "Unemployment and ill health--a gender analysis: results from a 14-year follow-up of the Northern Swedish Cohort." *Public Health* **127**(3): 214-222.

<https://www.ncbi.nlm.nih.gov/pubmed/23375366>

OBJECTIVES: To analyse the associations between unemployment and suboptimal self-rated

health as well as high alcohol consumption, and to examine the role of possible mediating factors explaining the associations from a gender perspective. STUDY DESIGN: The sample, from a 14-year longitudinal study with a 96.4% response rate, consisted of 386 women and 478 men who were either employed or unemployed at 30 years of age. METHODS: The health outcomes studied were suboptimal self-rated health and high alcohol consumption at 30 years of age. Logistic regression was used for analysis, and the relational theory of gender was used to discuss the findings. RESULTS: A strong relationship was found between unemployment and suboptimal self-rated health among women, and unemployment and high alcohol consumption among men, even after controlling for health-related selection, potential mediators and background factors. All mediating factors in the model were attributable to suboptimal self-rated health among unemployed women. Two mediating factors were also substantially related to high alcohol consumption among unemployed men. CONCLUSIONS: Long-term unemployment at a young age could have various health effects in men and women. At present, the mechanisms behind the health consequences are better understood among women. Research would benefit from developing theories in order to explain how youth unemployment leads to gendered health consequences.

Schroder, M. (2013). "Jobless now, sick later? Investigating the long-term consequences of involuntary job loss on health." *Adv Life Course Res* **18**(1): 5-15.

<https://www.ncbi.nlm.nih.gov/pubmed/24797463>

In the light of the current economic crises which in many countries lead to business closures and mass lay-offs, the consequences of job loss are important on various dimensions. They have to be investigated not only in consideration of a few years, but with a long-term perspective as well, because early life course events may prove important for later life outcomes. This paper uses data from SHARELIFE to shed light on the long-term consequences of involuntary job loss on health. The paper distinguishes between two different reasons for involuntary job loss: plant closures, which in the literature are considered to be exogenous to the individual, and lay-offs, where the causal direction of health and unemployment is ambiguous. These groups are separately compared to those who never experienced a job loss. The paper uses eleven different measures of health to assess long-term health consequences of job loss, which has to have occurred at least 25 years before the current interview. As panel data cannot be employed, a large body of variables, including childhood health and socio-economic conditions, is used to control for the initial conditions. The findings suggest that individuals with an exogenous job loss suffer in the long run: men are significantly more likely to be depressed and they have more trouble knowing the current date. Women report poorer general health and more chronic conditions and are also affected in their physical health: they are more likely to be obese or overweight, and to have any limitations in their (instrumental) activities of daily living. In the comparison group of laid-off individuals, controlling for the initial conditions reduces the effects of job loss on health - proving that controlling for childhood conditions is important.

Yaşlıoğlu, M., et al. (2013). "An Empirical Research on the Relationship between Job Insecurity, Job Related Stress and Job Satisfaction in Logistics Industry." *Procedia - Social and Behavioral Sciences* **99**: 332-338.

## 2012

Acelandu, M. I. (2012). "The Swedish Model in Employment: Post-crisis Solutions." *Theoretical and Applied Economics* **19**(4): 105-114.

<http://www.ectap.ro/theoretical-and-applied-economics-archive/>

The Swedish model in the field of employment is part of the Nordic countries' model focused on labour market flexibility in terms of a generous welfare system. This paper presents the characteristics of this model and its application effects in Sweden before and after the current crisis. According to specialized studies and registered indicators, Sweden has very good results in terms of general well-being, quality of life, employment of labour resources, being among the top countries. Thus, since the experience of the developed countries should be a benchmark for the developing countries, the purpose of the paper is to identify some measures that can be applied in Romania to improve employment, economic and social policies.

Ariizumi, H. et Schirle, T. (2012). "Are recessions really good for your health? Evidence from Canada." *Soc Sci Med* **74**(8): 1224-1231.

<https://www.ncbi.nlm.nih.gov/pubmed/22365938>

This study investigates the relationship between business cycle fluctuations and health in the Canadian context, given that a procyclical relationship between mortality rates and unemployment rates has already been well established in the U.S. literature. Using a fixed effects model and provincial data over the period 1977-2009, we estimate the effect of unemployment rates on Canadian age and gender specific mortality rates. Consistent with U.S. results, there is some evidence of a strong procyclical pattern in the mortality rates of middle-aged Canadians. We find that a one percentage point increase in the unemployment rate lowers the predicted mortality rate of individuals in their 30s by nearly 2 percent. In contrast to the U.S. data, we do not find a significant cyclical pattern in the mortality rates of infants and seniors.

Black, S. E., et al. (2012). Losing Heart? The Effect of Job Displacement on Health. *NBER Working Paper Series* ; n° 18660. Cambridge NBER: 48 ,tabl.

<http://www.nber.org/papers/w18660>

Job reallocation is considered to be a key characteristic of well-functioning labor markets, as more productive firms grow and less productive ones contract or close. However, despite its potential benefits for the economy, there are significant costs that are borne by displaced workers. We study how job displacement in Norway affects cardiovascular health using a sample of men and women who are predominantly aged in their early forties. To do so we merge survey data on health and health behaviors with register data on person and firm characteristics. We track the health of displaced and non-displaced workers from 5 years before to 7 years after displacement. We find that job displacement has a negative effect on the health of both men and women. Importantly, much of this effect is driven by an increase in smoking behavior. These results are robust to a variety of specification checks.

Browning, M. et Heinesen, E. (2012). "Effect of Job Loss Due to Plant Closure on Mortality and Hospitalization." *Journal of Health Economics* **31**(4): 599-616.

<http://www.sciencedirect.com/science/journal/01676296>

We investigate whether job loss due to plant closure causes an increased risk of (cause-specific) mortality and hospitalization for male workers having strong labour market attachment. We use administrative data: a panel of all persons in Denmark in the period 1980-2006, containing records on health and work status, and a link from workers to plants. We use propensity score weighting combined with non-parametric duration analysis. We find

that job loss increases the risk of overall mortality and mortality caused by circulatory disease; of suicide and suicide attempts; and of death and hospitalization due to traffic accidents, alcohol-related disease, and mental illness.

Burgard, S. A., et al. (2012). "Perceived job insecurity and health: the Michigan Recession and Recovery Study." *J Occup Environ Med* **54**(9): 1101-1106.

OBJECTIVE: To examine the association between perceived job insecurity in the next 12 months and current health with a sample representing working-aged employed adults in southeast Michigan in late 2009/early 2010 (n, 440 to 443). METHODS: Logistic regression was used to compare the health of participants who perceived job insecurity with those who did not, with adjustments for objective employment problems and social characteristics. RESULTS: Insecure workers were more likely to report fair or poor self-rated health (odds ratio [OR], 2.68; 95% confidence interval [CI], 1.14 to 6.32), symptoms suggesting major or minor depression (OR, 6.76; 95% CI, 3.34 to 13.3), and anxiety attacks (OR, 3.73; 95% CI, 1.40 to 9.97), even after correction for confounding factors. CONCLUSION: This study provides evidence that perceived job insecurity may be linked to health even among those who avoided unemployment in the late-2000s recession.

Coile, C., et al. (2012). *Recessions, Older Workers, and Longevity: How Long Are Recessions Good For Your Health?* NBER Working Paper Series ; n° 18361. Cambridge NBER: 45 ,tabl., fig. <http://www.nber.org/papers/w18361>

This paper examines the impact of exposure to higher unemployment rates in the pre-retirement years on subsequent mortality. Although past research has found that recessions reduce contemporaneous mortality, these short-term effects may reverse over time, particularly for older workers. If workers experience an economic downturn in their late 50s, they may face several years of reduced employment and earnings before retiring when they reach Social Security eligibility at age 62. They also may experience lost health insurance, and therefore higher financial barriers to health care, through age 65, when Medicare becomes available. All of these experiences could contribute to weaker long-term health outcomes. To examine these hypotheses, we use Vital Statistics mortality data between 1969 and 2008 to generate age-specific cohort survival probabilities at older ages. We then link these survival probabilities to labor market conditions at earlier ages. We also use data from the 1980-2010 March Current Population Surveys and the 1991-2010 Behavioral Risk Factor Surveillance System surveys to explore potential mechanisms for this health effect. Our results indicate that experiencing a recession in one's late 50s leads to a reduction in longevity. We also find that this exposure leads to several years of reduced employment, health insurance coverage, and health care utilization which may contribute to the lower long-term likelihood of survival.

Dolan, P. et Powdthavee, N. (2012). "Thinking about It: A Note on Attention and Well-Being Losses from Unemployment." *Applied Economics Letters* **19**(4-6): 325-328. <http://www.tandfonline.com/loi/rael20>

This article investigates Schkade and Kahneman's (1998) maxim that 'Nothing in life is quite as important as you think it is while you are thinking about it.' This article shows that whilst becoming unemployed hurts psychologically, unemployment has a greater impact on happiness if the person also regards it as an important event that took place in the last year. This finding, particularly if it is replicated for other domains, such as health and income, will have important implications for how we think about the impact of objective circumstances

on well-being and about well-being more generally.

Dupre, M. E., et al. (2012). "The cumulative effect of unemployment on risks for acute myocardial infarction." *Arch Intern Med* **172**(22): 1731-1737.

**BACKGROUND:** Employment instability is a major source of strain affecting an increasing number of adults in the United States. Little is known about the cumulative effect of multiple job losses and unemployment on the risks for acute myocardial infarction (AMI). **METHODS:** We investigated the associations between different dimensions of unemployment and the risks for AMI in US adults in a prospective cohort study of adults (N = 13,451) aged 51 to 75 years in the Health and Retirement Study with biennial follow-up interviews from 1992 to 2010. Unadjusted rates of age-specific AMI were used to demonstrate observed differences by employment status, cumulative number of job losses, and cumulative time unemployed. Cox proportional hazards models were used to examine the multivariate effects of cumulative work histories on AMI while adjusting for sociodemographic background and confounding risk factors. **RESULTS:** The median age of the study cohort was 62 years, and 1061 AMI events (7.9%) occurred during the 165,169 person-years of observation. Among the sample, 14.0% of subjects were unemployed at baseline, 69.7% had 1 or more cumulative job losses, and 35.1% had spent time unemployed. Unadjusted plots showed that age-specific rates of AMI differed significantly for each dimension of work history. Multivariate models showed that AMI risks were significantly higher among the unemployed (hazard ratio, 1.35 [95% CI, 1.10-1.66]) and that risks increased incrementally from 1 job loss (1.22 [1.04-1.42]) to 4 or more cumulative job losses (1.63 [1.29-2.07]) compared with no job loss. Risks for AMI were particularly elevated within the first year of unemployment (hazard ratio, 1.27 [95% CI, 1.01-1.60]) but not thereafter. Results were robust after adjustments for multiple clinical, socioeconomic, and behavioral risk factors. **CONCLUSIONS:** Unemployment status, multiple job losses, and short periods without work are all significant risk factors for acute cardiovascular events.

Geishecker, I. (2012). "Simultaneity Bias in the Analysis of Perceived Job Insecurity and Subjective Well-Being." *Economics Letters* **116**(3): 319-321.

<http://www.sciencedirect.com/science/journal/01651765>

The paper assesses perceived job insecurity as a determinant of current subjective well-being and demonstrates that standard models may yield significantly downward biased estimates.

Joutard, X., et al. (2012). "Continuous-Time Markov Model for Transitions Between Employment and Non-Employment: The Impact of a Cancer Diagnosis." *Annals of Economics and Statistics*(107-108): 239-265.

McLeod, C. B., et al. (2012). "Unemployment and Mortality: A Comparative Study of Germany and the United States." *Am J Public Health* **102**(8): 1542-1550.

PM:22698036

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3464820/pdf/AJPH.2011.300475.pdf>

**Objectives.** We examined the relationship between unemployment and mortality in Germany, a coordinated market economy, and the United States, a liberal market economy. **Methods.** We followed 2 working-age cohorts from the German Socio-economic Panel and the US Panel Study of Income Dynamics from 1984 to 2005. We defined unemployment as unemployed at the time of survey. We used discrete-time survival analysis, adjusting for potential confounders. **Results.** There was an unemployment-mortality association among

Americans (relative risk [RR] = 2.4; 95% confidence interval [CI] = 1.7, 3.4), but not among Germans (RR = 1.4; 95% CI = 1.0, 2.0). In education-stratified models, there was an association among minimum-skilled (RR = 2.6; 95% CI = 1.4, 4.7) and medium-skilled (RR = 2.4; 95% CI = 1.5, 3.8) Americans, but not among minimum- and medium-skilled Germans. There was no association among high-skilled Americans, but an association among high-skilled Germans (RR = 3.0; 95% CI = 1.3, 7.0), although this was limited to those educated in East Germany. Minimum- and medium-skilled unemployed Americans had the highest absolute risks of dying. Conclusions. The higher risk of dying for minimum- and medium-skilled unemployed Americans, not found among Germans, suggests that the unemployment-mortality relationship may be mediated by the institutional and economic environment

McInerney, M. et Mellor, J. M. (2012). "Recessions and seniors' health, health behaviors, and healthcare use: analysis of the Medicare Current Beneficiary Survey." *J Health Econ* **31**(5): 744-751.

<https://www.ncbi.nlm.nih.gov/pubmed/22898452>

A number of studies report that U.S. state mortality rates, particularly for the elderly, decline during economic downturns. Further, several prior studies use microdata to show that as state unemployment rates rise, physical health improves, unhealthy behaviors decrease, and medical care use declines. We use data on elderly mortality rates and data from the Medicare Current Beneficiary Survey from a time period that encompasses the start of the Great Recession. We find that elderly mortality is countercyclical during most of the 1994-2008 period. Further, as unemployment rates rise, seniors report worse mental health and are no more likely to engage in healthier behaviors. We find suggestive evidence that inpatient utilization increases perhaps because of an increased physician willingness to accept Medicare patients. Our findings suggest that either elderly individuals respond differently to recessions than do working age adults, or that the relationship between unemployment and health has changed.

Naswall, K., et al. (2012). "Job insecurity as a predictor of physiological indicators of health in healthy working women: an extension of previous research." *Stress Health* **28**(3): 255-263.

Job insecurity has been linked to different negative outcomes, such as negative work attitudes and health problems, with most studies including self-reported outcomes. Extending earlier research, the present study includes both self-reported and physiological indicators of health and sets out to investigate whether higher levels of job insecurity are related to higher levels of allostatic load, higher levels of morning cortisol, more physician-diagnosed symptoms of ill-health and poorer self-rated health. The study also investigated whether self-rated health mediated the relation between job insecurity and physiological outcomes. This was cross-sectionally studied in a cohort of Swedish women who participated in a large-scale longitudinal study focusing on life span development and adaptation. The results showed that job insecurity was related to self-rated health and morning cortisol, and, contrary to expectations, that job insecurity was unrelated to allostatic load and physician ratings, both directly and indirectly. The results indicate that, in healthy working women, job insecurity may be less detrimental to long-term physiological health than originally hypothesized.

Osthus, S. (2012). "Health effects of downsizing survival and job loss in Norway." *Soc Sci.Med* **75**(5): 946-953.

<http://www.sciencedirect.com/science/article/pii/S0277953612004042>

The effects of job displacement (i.e. job loss due to downsizing or plant closure) and downsizing survival on different health outcomes (i.e. psychological distress, muscle-skeletal pain, and chest pain) were examined with annual panel data from the Norwegian Panel Survey of Living Conditions 1997-2003. The data were analyzed by means of dynamic panel data regression models, taking explicitly into account pre-downsizing health levels and unobserved heterogeneity. In contrast to some previous studies, but in line with theoretical expectations, no significant effect of downsizing survival was found. Job displacement was, however, found to lead to a significant increase in psychological distress, but even this effect seems transitory rather than long-lasting

Powdthavee, N. (2012). "Jobless, Friendless and Broke: What Happens to Different Areas of Life before and after Unemployment?" *Economica* **79**(315): 557-575.

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-0335/issues>

Using a nationally representative longitudinal dataset of the British people, this paper explores how different areas of a person's life evolved before and after unemployment. There is evidence that unemployment is preceded, on average, by a year of dissatisfaction with one's finance and job, for both genders. Having entered unemployment, men and women reported a significant and persistent drop in satisfaction with finance and social life, which perhaps explains why there is little overall hedonic adaptation to unemployment. This paper proposes a two-layer model to study leads and lags in life satisfaction to changes in employment status.

Powdthavee, N. (2012). Resilience to Economic Shocks and the Long Reach of Childhood Bullying, Centre for Economic Performance, LSE, CEP Discussion Papers.

<http://cep.lse.ac.uk/pubs/download/dp1173.pdf>

This paper investigates whether people's ability to withstand and adapt to one of the most important economic shocks--job loss--is determined early on in childhood. Using nationally representative longitudinal data that tracks almost 3,000 children into adulthood, we show that the negative effect of unemployment on mental health and life satisfaction is almost four times larger for workers who had been bullied a lot in their early life. We also find zero adaptation to unemployment for these individuals over time. Although the results should be viewed as illustrative and more research is needed, their potential implications for economists and policy makers are discussed.

Ruhm, C. J. (2012). Understanding the Relationship between Macroeconomic Conditions and Health. *The Elgar Companion to Health Economics, Second Edition*. Jones, A. M., Cheltenham, U.K. and Northampton, Mass.: Elgar: 5-14.

Sirvio, A., et al. (2012). "Precariousness and discontinuous work history in association with health." *Scand J Public Health* **40**(4): 360-367.

AIMS: Precarious type of employment may have a negative impact on health, notably on low psychological wellbeing. The basis of the former relationship is constructed by definition and operationalisation of precariousness. In this research, we first experimented with a construct of work history in the operationalisation of precariousness and second studied the relationship between precariousness and health. METHODS: The research data originated from a large population-based birth cohort (NFBC 1966). The study sample consists of 3449 respondents to the postal questionnaire at the age of 31 and the information supplemented

by the register data of the Finnish Centre for Pensions. Health was measured by self-reports of doctor-diagnosed/treated illnesses and HSCL-25 for mental symptoms. RESULTS: Our operationalisation with a construct of discontinuous work history captured the precarious insecure relation to work. The precarious workers were found to have proportionally more mental symptoms in comparison with permanent workers. The perception of distress was stronger among precarious workers who perceived high job insecurity. However, there were no differences in doctor-diagnosed/treated illnesses between precarious and permanent workers. CONCLUSIONS: The study suggests that the construct of work history is a useful element in defining precariousness. The study also illustrates the association of precariousness, perceived job insecurity, and mental distress. The study suggests further research on disadvantages experienced by precarious workers.

## 2011

Andersson, F., et al. (2011). Job Displacement And The Duration Of Joblessness: The Role Of Spatial Mismatch, Center for Economic Studies, U.S. Census Bureau, Working Papers: 51 pages.

<ftp://ftp2.census.gov/ces/wp/2011/CES-WP-11-30R.pdf>

This paper presents a new approach to the measurement of the effects of spatial mismatch that takes advantage of matched employer-employee administrative data integrated with a person-specific job accessibility measure, as well as demographic and neighborhood characteristics. The basic hypothesis is that if spatial mismatch is present, then improved accessibility to appropriate jobs should shorten the duration of unemployment. We focus on lower-income workers with strong labor force attachment searching for employment after being subject to a mass layoff--thereby focusing on a group of job searchers that are plausibly searching for exogenous reasons. We construct person-specific measures of job accessibility based upon an empirical model of transport modal choice and network travel-time data, giving variation both across neighborhoods in nine metropolitan areas, as well as across neighbors. Our results support the spatial mismatch hypothesis. We find that better job accessibility significantly decreases the duration of joblessness among lower-paid displaced workers. Blacks, females, and older workers are more sensitive to job accessibility than other subpopulations.

Boone, J., et al. (2011). "Recessions are bad for workplace safety." *J Health Econ* **30**(4): 764-773.

<https://www.ncbi.nlm.nih.gov/pubmed/21719132>

Workplace accidents are an important economic phenomenon. Yet, the pro-cyclical fluctuations in workplace accidents are not well understood. They could be related to fluctuations in effort and working hours, but workplace accidents may also be affected by reporting behavior. Our paper uses unique data on workplace accidents from an Austrian matched worker-firm dataset to study in detail how economic incentives affect workplace accidents. We find that workers who reported an accident in a particular period of time are more likely to be fired later on. And, we find support for the idea that recessions influence the reporting of moderate workplace accidents: if workers think the probability of dismissals at the firm level is high, they are less likely to report a moderate workplace accident.

Brown, A. J. G., et al. (2011). "Comparing the Effectiveness of Employment Subsidies." *Labour Economics* **18**(2): 168-179.

<http://www.sciencedirect.com/science/journal/09275371>

This paper examines the implications of different types of employment subsidies for employment, welfare, and inequality. It investigates how these effects depend on what target groups the subsidies address. Our analysis focuses on policies that are "approximately welfare efficient" (AWE), i.e., policies that (a) improve employment and welfare, (b) do not raise earnings inequality and (c) are self-financing. We construct a microfounded, dynamic model of hiring and separations and calibrate it with German data. The calibration shows that hiring vouchers can be AWE, while low-wage subsidies are not AWE. Furthermore, hiring vouchers targeted at the long-term unemployed are more effective than those targeted at low-ability workers.

Deb, P., et al. (2011). "The Effect of Job Loss on Overweight and Drinking." Journal of Health Economics **30**(2): 317-327.

<http://www.sciencedirect.com/science/journal/01676296>

This paper examines the impact of job loss due to business closings on body mass index (BMI) and alcohol consumption. We suggest that the ambiguous findings in the extant literature may be due in part to unobserved heterogeneity in response and in part due to an overly broad measure of job loss that is partially endogenous (e.g., layoffs). We improve upon this literature using: exogenously determined business closings, a sophisticated estimation approach (finite mixture models) to deal with complex heterogeneity, and national, longitudinal data from the Health and Retirement Study. For both alcohol consumption and BMI, we find evidence that individuals who are more likely to respond to job loss by increasing unhealthy behaviors are already in the problematic range for these behaviors before losing their jobs. These results suggest the health effects of job loss could be concentrated among "at risk" individuals and could lead to negative outcomes for the individuals, their families, and society at large.

Eliason, M. (2011). "Income after Job Loss: The Role of the Family and the Welfare State." Applied Economics **43**(4-6): 603-618.

<http://www.tandfonline.com/loi/raec20>

That displaced workers suffer long-lasting earnings losses is a stylized fact, raising the question whether these losses are replaced by other means. For married men, increased labour supply by the wife may be one way. Another possibility is that the public welfare system offsets the same losses. I used a Swedish longitudinal data set containing married couples where the husband was either employed or made redundant in 1987 by an establishment closure. There was no evidence that husbands' job loss positively affected wives' annual earnings. Although husbands' utilization of unemployment insurance increased significantly, government transfers including also sickness insurance, disability insurance and means-tested social benefits, did not fully replace husbands' long-run earnings losses. Hence, displaced workers seem to suffer also from long-lasting losses in family income, which in many respects is a better measure of economic welfare than individual earnings or wages.

Green, F. (2011). "Unpacking the misery multiplier: how employability modifies the impacts of unemployment and job insecurity on life satisfaction and mental health." J Health Econ **30**(2): 265-276.

Employability strongly moderates the effects of unemployment and of job insecurity on life satisfaction and mental health. Using nationally representative panel data from Australia, I find that an increase in employability from zero to 100% cancels around three quarters, in some cases more, of the detrimental effect of unemployment. Employability also matters for

employees: an increase in men's employability from zero to 100% reduces the detrimental effect of job insecurity by more than half. The effects of extreme job insecurity and of unemployment are large and of comparable magnitudes. The findings are used to compute estimates of the well-being trade-off between increases in job insecurity and increases in employability, relevant to the support of "flexicurity" policies, and of the "misery multiplier", the extent to which the effect of a rise in aggregate unemployment on those becoming unemployed is supplemented by the effects on others' insecurity and employability.

Helliwell, J. F. et Huang, H. (2011). New Measures of the Costs of Unemployment: Evidence from the Subjective Well-Being of 2.3 Million Americans, National Bureau of Economic Research, Inc, NBER Working Papers: 16829.

<http://www.nber.org/papers/w16829.pdf>

By exploiting two very large samples of US subjective well-being data we are able to obtain comparable estimates of the monetary and other costs of unemployment on the unemployed themselves, while simultaneously estimating the effects of local employment on the subjective well-being of the rest of the population. For those who are unemployed, the subjective well-being consequences can be divided into income and non-income effects, with the latter being five times larger than the former. This is similar to what has been found in many countries, as is our finding that the non-income effects are lower for individuals living in areas of high unemployment. Most importantly, we are able to use the large sample size and variety of questions in the BRFSS and Gallup daily polls to reconcile, and extend to the United States, what had previously seemed to be contradictory results on the size and nature of the spillover effects of unemployment on subjective well-being. At the population level the spillover effects are twice as large as the direct effects, making the total well-being costs of unemployment fifteen times larger than those directly due to the lower incomes of the unemployed.

Niedhammer, I., et al. (2011). "Occupational and behavioural factors in the explanation of social inequalities in premature and total mortality: a 12.5-year follow-up in the Lorhandicap study." *Eur J Epidemiol* **26**(1): 1-12.

The respective contribution of occupational and behavioural factors to social disparities in all-cause mortality has been studied very seldom. The objective of this study was to evaluate the role of occupational and behavioural factors in explaining social inequalities in premature and total mortality in the French working population. The study population consisted of a sample of 2,189 and 1,929 French working men and women, who responded to a self-administered questionnaire in mid-1996, and were followed up until the end of 2008. Mortality was derived from register-based information and linked to the baseline data. Socioeconomic status was measured using occupation. Occupational factors included biomechanical and physical exposures, temporary contract, psychological demands, and social support, and behavioural factors, smoking, alcohol abuse, and body mass index. Significant social differences were observed for premature and total mortality. Occupational factors reduced the hazard ratios of mortality for manual workers compared to managers/professionals by 72 and 41%, from 1.88 (95% CI: 1.17-3.01) to 1.25 (95% CI: 0.74-2.12) for premature mortality, and from 1.71 (95% CI: 1.18-2.47) to 1.42 (95% CI: 0.95-2.13) for total mortality. The biggest contributions were found for biomechanical and physical exposures, and job insecurity. The role of behavioural factors was very low. Occupational factors played a substantial role in explaining social disparities in mortality, especially for premature mortality and men. Improving working conditions amongst the lowest social groups may help to reduce social inequalities in mortality.

Ochsen, C. et Welsch, H. (2011). "The Social Costs of Unemployment: Accounting for Unemployment Duration." *Applied Economics* **43**(25-27): 3999-4005.

<http://www.tandfonline.com/loi/raec20>

This article contributes to the literature on unemployment and well-being by investigating the linkage between personal life satisfaction and a macroeconomic indicator of the duration of unemployment. Using data for more than 50,000 individuals in 10 European countries, 1992-2002, we find that the social costs of unemployment, in terms of general unemployment's impact on life satisfaction, relate significantly and to a considerable extent to unemployment duration. It is thus not just the risk of becoming or staying unemployed that people worry about, but especially the prospect of staying long-term unemployed. This fear affects employed and unemployed people alike. Our findings provide a strong point for focusing labour market policies on long-term unemployment, in addition to considerations of human capital depreciation.

Rothstein, J. (2011). Unemployment Insurance and Job Search in the Great Recession, National Bureau of Economic Research, Inc, NBER Working Papers: 17534.

<http://www.nber.org/papers/w17534.pdf>

Nearly two years after the official end of the "Great Recession," the labor market remains historically weak. One candidate explanation is supply-side effects driven by dramatic expansions of Unemployment Insurance (UI) benefit durations, to as many as 99 weeks. This paper investigates the effect of these UI extensions on job search and reemployment. I use the longitudinal structure of the Current Population Survey to construct unemployment exit hazards that vary across states, over time, and between individuals with differing unemployment durations. I then use these hazards to explore a variety of comparisons intended to distinguish the effects of UI extensions from other determinants of employment outcomes. The various specifications yield quite similar results. UI extensions had significant but small negative effects on the probability that the eligible unemployed would exit unemployment, concentrated among the long-term unemployed. The estimates imply that UI benefit extensions raised the unemployment rate in early 2011 by only about 0.1-0.5 percentage points, much less than is implied by previous analyses, with at least half of this effect attributable to reduced labor force exit among the unemployed rather than to the changes in reemployment rates that are of greater policy concern.

Scandella, F. (2011). "Restructurations : la santé des travailleurs en crise. Dossier spécial." *Hesamag : Bulletin D'information Du Departement Sante Securite E.T.U.I.*: 12-34, phot.

Les entreprises n'ont pas attendu 2008 et le déclenchement de la crise financière, puis économique, pour se lancer dans des restructurations. Il est cependant indéniable que leur nombre et leur intensité ont augmenté ces dernières années dans la plupart des pays européens, en raison des difficultés économiques réelles ou parce que la conjoncture offrait un prétexte idéal pour procéder à des licenciements. Sans être exhaustif, ce dossier aborde les conséquences sur la santé des travailleurs principalement à travers trois exemples : dans les hôpitaux publics français, dans une usine allemande d'un géant industriel et dans une PME (petite et moyenne entreprise) belge du secteur du verre.

Schmitz, H. (2011). "Why Are the Unemployed in Worse Health? The Causal Effect of Unemployment on Health." *Labour Economics* **18**(1): 71-78.

<http://www.sciencedirect.com/science/journal/09275371>

We analyse the effect of unemployment on health using information from the German Socio-Economic Panel of the years 1991-2008. To establish a causal effect we rely on fixed-effects methods and plant closures as exogenous entries into unemployment. Although unemployment is negatively correlated with health, we do not find a negative effect of unemployment due to plant closure on health across several health measures (health satisfaction, mental health, and hospital visits). For this subgroup of the unemployed, unemployment does not seem to be harmful and selection effects of ill individuals into unemployment are likely to contribute to the observed overall correlation between poor health and unemployment.

Stucker, D., et al. (2011). "Effects of the 2008 recession on health : a first look at European data." The Lancet **378**(9786): 124-125.

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(11\)61079-9/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)61079-9/abstract)

2 years ago, we published a paper in The Lancet reviewing the mortality experience of 26 European countries during economic crises over three decades. We showed how increases in unemployment had been associated with increased suicides among people younger than 65 years and with fewer road-traffic fatalities (reflecting lower car use). On the basis of our analyses, we predicted that the economic crisis that began in summer, 2008, would have similar consequences. To what extent have our predictions been fulfilled ? We can now offer a preliminary assessment based on data on mortality in several European countries for 2009.

Virtanen, P., et al. (2011). "Exposure to temporary employment and job insecurity: a longitudinal study of the health effects." Occup Environ Med **68**(8): 570-574.

**OBJECTIVE:** This study analysed interactions between job insecurity and temporary employment and health. We tested the violation hypothesis (whether permanent employment increases the health risk associated with job insecurity) and the intensification hypothesis (whether temporary employment increases the health risk associated with job insecurity) in a longitudinal setting. Previous research on this topic is scarce and based on cross-sectional data. **METHODS:** A population cohort (n=1071) was surveyed at age 30 and age 42. Exposure to temporary employment during this 12-year period was elicited with a job-time matrix and measured as the score of 6-month periods. Exposure to job insecurity was measured according to the perceived threat of unemployment. Health at follow-up was assessed as optimal versus suboptimal self-rated health, sleep quality and mental health. In addition to sociodemographics and baseline health, the analyses were adjusted for exposure to unemployment, non-employment and self-employment during the 12-year period. **RESULTS:** 26% of participants had been exposed to temporary employment. The effect of job insecurity on health was the same in the exposed and unexposed groups, that is the violation hypothesis was not supported. Non-significant interactions between the exposures and all health outcomes also indicated null findings regarding the intensification hypothesis. **CONCLUSIONS:** These findings suggest that perceived job insecurity can lead to adverse health effects in both permanent and temporary employees. Policies should aim to improve work-related well-being by reducing job insecurity. Efforts towards 'flexicurity' are important, but it is equally important to remember that a significant proportion of employees with a permanent contract experience job insecurity.

Waenerlund, A. K., et al. (2011). "Is temporary employment related to health status? Analysis of the Northern Swedish Cohort." Scand J Public Health **39**(5): 533-539.

**AIMS:** The aim of this study was to investigate whether temporary employment was related to non-optimal self-rated health and psychological distress at age 42 after adjustment for the same indicators at age 30, and to analyze the effects of job insecurity, low cash margin and high job strain on this relationship. **METHODS:** A subcohort of the Northern Swedish Cohort that was employed at the 2007 follow-up survey (n = 907, response rate of 94%) was analyzed using data from 1995 and 2007 questionnaires. **RESULTS:** Temporary employees had a higher risk of both non-optimal self-rated health and psychological distress. After adjustment for non-optimal self-rated health at age 30 and psychological distress at age 30 as well as for sociodemographic variables, the odds ratios decreased but remained significant. However, after adjustment for job insecurity, high job strain and low cash margin the odds ratio dropped for non-optimal self-rated health but remained significant for psychological distress. **CONCLUSIONS:** Temporary employment may have adverse effects on self-rated health and psychological health after adjustment for previous health status and sociodemographic variables. Our findings indicate that low cash margin and job insecurity may partially mediate the association between temporary employment and health status.

## 2010

Clark, A., et al. (2010). "Boon or Bane? Others' Unemployment, Well-Being and Job Insecurity." *Labour Economics* **17**(1): 52-61.

<http://www.sciencedirect.com/science/journal/09275371>

The social norm of unemployment suggests that aggregate unemployment reduces the well-being of the employed, but has a far smaller effect on the unemployed. We use German panel data to reproduce this standard result, but then suggest that the appropriate distinction may not be between employment and unemployment, but rather between higher and lower levels of labour-market security, at least for men. Men with good job prospects, both employed and unemployed, are strongly negatively affected by regional unemployment. However, insecure employed men and poor-prospect unemployed men are less negatively, or even positively, affected. There is however no clear relationship for women. We analyse labour-market inequality and unemployment hysteresis in the light of our results.

Grun, C., et al. (2010). "Is Any Job Better Than No Job? Life Satisfaction and Re-employment." *Journal of Labor Research* **31**(3): 285-306.

<http://link.springer.com/journal/volumesAndIssues/12122>

Using data for West Germany from the German Socio-Economic Panel, we analyse the impact of transitions from unemployment to full-time employment on life satisfaction, with special focus on the influence of job quality. We apply various indicators of job quality (self-reported job satisfaction, wages, type of contract, and indicators of the fit between the worker and job requirements). We control for the influence of income changes and other factors affecting life satisfaction, using a conditional logit estimator. Results suggest that job quality only matters to some extent, and often people in bad jobs are still better off than those who remain unemployed. This effect is statistically significant for most indicators of job quality, except for workers with low job satisfaction and for those whose new job is much worse than their pre-unemployment job.

Kinnunen, U., et al. (2010). "Job Insecurity, Recovery and Well-Being at Work: Recovery Experiences

as Moderators." *Economic and Industrial Democracy* **31**(2): 179-194.  
<http://eid.sagepub.com/archive/>

In the present study, the moderating role of recovery experiences in the job insecurity-occupational well-being relationship was examined. Recovery experiences refer to psychological mechanisms (psychological detachment from work, relaxation, mastery, and control during off-job time) facilitating recovery. Altogether 527 employees from a variety of different jobs participated in the questionnaire study. The moderated regression analyses revealed that in an insecure job situation, relaxation buffered against increased need for recovery from work, and psychological detachment impaired vigour at work. The results suggest that recovery experiences can to some extent be a buffer against strain related to job insecurity.

Laszlo, K. D., et al. (2010). "Job insecurity and health: a study of 16 European countries." *Soc Sci Med* **70**(6): 867-874.

Although the number of insecure jobs has increased considerably over the recent decades, relatively little is known about the health consequences of job insecurity, their international pattern, and factors that may modify them. In this paper, we investigated the association between job insecurity and self-rated health, and whether the relationship differs by country or individual-level characteristics. Cross-sectional data from 3 population-based studies on job insecurity, self-rated health, demographic, socioeconomic, work-related and behavioural factors and lifetime chronic diseases in 23,245 working subjects aged 45-70 years from 16 European countries were analysed using logistic regression and meta-analysis. In fully adjusted models, job insecurity was significantly associated with an increased risk of poor health in the Czech Republic, Denmark, Germany, Greece, Hungary, Israel, the Netherlands, Poland and Russia, with odds ratios ranging between 1.3 and 2.0. Similar, but not significant, associations were observed in Austria, France, Italy, Spain and Switzerland. We found no effect of job insecurity in Belgium and Sweden. In the pooled data, the odds ratio of poor health by job insecurity was 1.39. The association between job insecurity and health did not differ significantly by age, sex, education, and marital status. Persons with insecure jobs were at an increased risk of poor health in most of the countries included in the analysis. Given these results and trends towards increasing frequency of insecure jobs, attention needs to be paid to the public health consequences of job insecurity.

Luechinger, S., et al. (2010). "Why Does Unemployment Hurt the Employed? Evidence from the Life Satisfaction Gap between the Public and the Private Sector." *Journal of Human Resources* **45**(4): 989-1045.

<http://jhr.uwpress.org/content/by/year>

High unemployment rates entail substantial costs to the working population in terms of reduced subjective well-being. This paper studies the importance of individual economic security, in particular job security, by exploiting sector-specific institutional differences in the exposure to economic shocks. Public servants have stricter dismissal protection and face a lower risk of their organization becoming bankrupt than private sector employees. The empirical results from individual panel data for Germany and repeated cross-sectional data for the United States and Europe show that private sector employees' subjective well-being reacts indeed much more sensitive to fluctuations in unemployment rates than public sector employees'.

Muntaner, C., et al. (2010). "Welfare state, labour market inequalities and health. In a global context:

an integrated framework. SESPAS report 2010." *Gac Sanit* **24 Suppl 1**: 56-61.

Since the nineteen seventies, high- and low-income countries have undergone a pattern of transnational economic and cultural integration known as globalization. The weight of the available evidence suggests that the effects of globalization on labor markets have increased economic inequality and various forms of economic insecurity that negatively affect workers' health. Research on the relation between labor markets and health is hampered by the social invisibility of many of these health inequalities. Empirical evidence of the impact of employment relations on health inequalities is scarce for low-income countries, small firms, rural settings, and sectors of the economy in which "informality" is widespread. Information is also scarce on the effectiveness of labor market interventions in reducing health inequalities. This pattern is likely to continue in the future unless governments adopt active labor market policies. Such policies include creating jobs through state intervention, regulating the labor market to protect employment, supporting unions, and ensuring occupational safety and health standards.

## 2009

(2009). La santé dans les restructurations : approches innovantes et recommandations de principe. Paris ASTREE: (138 ).

[http://www.astrees.org/fic\\_bdd/article\\_pdf\\_fichier/1241706166\\_La\\_sante\\_dans\\_les\\_restructurations\\_Le\\_rapport\\_HIRES.pdf](http://www.astrees.org/fic_bdd/article_pdf_fichier/1241706166_La_sante_dans_les_restructurations_Le_rapport_HIRES.pdf)

Chaque entreprise exposée à la concurrence est l'objet d'une restructuration ; c'est donc un phénomène auquel sont confrontées toutes les sociétés européennes. Une restructuration implique un changement organisationnel beaucoup plus important que des changements courants. Elle affecte au minimum tout un secteur de l'organisation ou au plus l'ensemble de l'entreprise, et ne se limite pas à des modifications secondaires de l'activité. Les changements opérés peuvent se traduire par une fermeture, une réduction d'effectifs, l'externalisation, l'« offshoring », la sous-traitance, la fusion, la délocalisation de la production, la mobilité interne ou tout autre réorganisation interne complexe. Mis à part ses effets sur l'emploi et en raison de ces derniers, la restructuration a également un impact important sur la santé des salariés, des organisations et des communautés. Par ailleurs, la santé est un aspect fondamental qui a des répercussions sur l'emploi et la productivité au sein de l'entreprise. Préserver la santé est donc un souci essentiel pour tous ceux qui participent aux processus de restructuration, et c'est un aspect souvent négligé des changements organisationnels auquel s'est intéressé le groupe d'experts HIRES. Le groupe d'experts HIRES tente de répondre aux questions suivantes : quelles sont les données dont on dispose, qui permettraient d'étudier de manière suivie les formes courantes de restructuration organisationnelles et leurs effets, au niveau national et européen ? Existe-t-il une corrélation entre les effets de la restructuration sur la santé des individus et sur les performances de l'entreprise ? Quelles politiques européennes permettraient d'encadrer les processus de restructuration afin d'en réduire au maximum les effets négatifs sur la santé ? Comment les différents responsables de ces restructurations pourraient-ils coopérer au mieux pour préserver le bien-être au niveau de l'entreprise, celui des salariés et de la communauté ? Quelles sont les méthodes de restructuration innovantes qui prennent le mieux en compte le problème de la santé ?

Bambra, C. et Eikemo, T. A. (2009). "Welfare state regimes, unemployment and health: a comparative study of the relationship between unemployment and self-reported health in 23

European countries." Journal of Epidemiology and Community Health **63**(2): 92-98.

Deb, P., et al. (2009). Job Loss: Eat, drink and try to be merry? NBER Working Paper Series ; n° 15122. Cambridge NBER: 39 ,tabl., fig., annexes.

<http://www.nber.org/papers/w15122>

This paper examines the impact of job loss from business closings on body mass index (BMI) and alcohol consumption. We improve upon extant literature by using: exogenously determined business closings, a sophisticated estimation approach (finite mixture models) to deal with complex heterogeneity, and national, longitudinal data (Health and Retirement Study). For both alcohol consumption and BMI, we find evidence that individuals who are more likely to respond to job loss by increasing unhealthy behaviors are already in the problematic range for these behaviors before losing their jobs. Thus health effects of job loss could be concentrated among "at risk" individuals.

Beckfield, J. et Krieger, N. (2009). "Epi + demos + cracy: linking political systems and priorities to the magnitude of health inequities--evidence, gaps, and a research agenda." Epidemiol Rev **31**: 152-177.

A new focus within both social epidemiology and political sociology investigates how political systems and priorities shape health inequities. To advance and better integrate research on political determinants of health inequities, the authors conducted a systematic search of the ISI Web of Knowledge and PubMed databases and identified 45 studies, commencing in 1992, that explicitly and empirically tested, in relation to an a priori political hypothesis, for either 1) changes in the magnitude of health inequities or 2) significant cross-national differences in the magnitude of health inequities. Overall, 84% of the studies focused on the global North, and all clustered around 4 political factors: 1) the transition to a capitalist economy; 2) neoliberal restructuring; 3) welfare states; and 4) political incorporation of subordinated racial/ethnic, indigenous, and gender groups. The evidence suggested that the first 2 factors probably increase health inequities, the third is inconsistently related, and the fourth helps reduce them. In this review, the authors critically summarize these studies' findings, consider methodological limitations, and propose a research agenda-with careful attention to spatiotemporal scale, level, time frame (e.g., life course, historical generation), choice of health outcomes, inclusion of politics, and specification of political mechanisms-to address the enormous gaps in knowledge that were identified.

Deb, P., et al. (2009). Job Loss: Eat, drink and try to be merry?, National Bureau of Economic Research, Inc, NBER Working Papers: 15122.

<http://www.nber.org/papers/w15122.pdf>

This paper examines the impact of job loss from business closings on body mass index (BMI) and alcohol consumption. We improve upon extant literature by using: exogenously determined business closings, a sophisticated estimation approach (finite mixture models) to deal with complex heterogeneity, and national, longitudinal data (Health and Retirement Study). For both alcohol consumption and BMI, we find evidence that individuals who are more likely to respond to job loss by increasing unhealthy behaviors are already in the problematic range for these behaviors before losing their jobs. Thus health effects of job loss could be concentrated among "at risk" individuals.

Haan, P. et Myck, M. (2009). Dynamics of Poor Health and Non-Employment. Discussion Paper; 4154. Bonn IZA: 24 , tabl., fig.

<http://ftp.iza.org/dp4154.pdf>

While there is little doubt that the probability of poor health increases with age, and that less healthy people face a more difficult situation on the labour market, the precise relationship between facing the risks of health deterioration and labour market instability is not well understood. Using twelve years of data from the German Socio-Economic Panel we study the nature of the relationship between poor health and non-employment on a sample of German men aged 30-59. We propose to model poor health and non-employment as interrelated risks determined within a dynamic structure conditional on a set of individual characteristics. Applying dynamic panel estimation we identify the mechanism through which poor health contributes to the probability of being jobless and vice versa. We find an important role of unobserved heterogeneity and evidence for correlation in the unobservable characteristics determining the two processes. The results also show strong persistence in the dynamics of poor health and non-employment.

Kuhn, A., et al. (2009). The public health costs of job loss. Working Paper ; n° 424. Zurich Institute for Empirical Research in Economics: 40 , tabl., fig.

<http://www.iew.uzh.ch/wp/iewwp424.pdf>

We study the short-run effect of involuntary job loss on comprehensive measures of public health costs. We focus on job loss induced by plant closure, thereby addressing the reverse causality problem of deteriorating health leading to job loss as job displacements due to plant closure are unlikely caused by workers' health status, but potentially have important effects on individual workers' health and associated public health costs. Our empirical analysis is based on a rich data set from Austria providing comprehensive information on various types of health care costs and day-by-day work history at the individual level. Our central findings are: (i) overall expenditures on medical treatments (hospitalizations, drug prescriptions, doctor visits) are not strongly affected by job displacement; (ii) job loss increases expenditures for antidepressants and related drugs, as well as for hospitalizations due to mental health problems for men (but not for women); and (iii) sickness benefits strongly increase due to job loss.

Salm, M. (2009). "Does Job Loss Cause Ill Health?" Health Economics **18**(9): 1075-1089.

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-1050/issues>

This study estimates the effect of job loss on health for near elderly employees based on longitudinal data from the Health and Retirement Study. Previous studies find a strong negative correlation between unemployment and health. To control for possible reverse causality, this study focuses on people who were laid off for an exogenous reason - the closure of their previous employers' business. I find no causal effect of exogenous job loss on various measures of physical and mental health. This suggests that the inferior health of the unemployed compared to the employed could be explained by reverse causality.

Quinlan, M. et Bohle, P. (2009). "Overstretched and unreciprocated commitment: reviewing research on the occupational health and safety effects of downsizing and job insecurity." Int J Health Serv **39**(1): 1-44.

Over the past two decades, a leading business practice has been often-repeated rounds of downsizing and restructuring (also referred to as reorganization, re-engineering, and a host of other euphemistic terms) by large private and public sector employers. Frequently associated with other practices such as outsourcing, privatization, and the increased use of

temporary workers, downsizing/restructuring has increased the level of job insecurity among workers as well as leading to changes in work processes (including work intensification and multi-tasking) and management behavior. How has downsizing/restructuring and increased job insecurity affected the occupational health, safety, and well-being of workers, and what measures have employers, unions, and governments taken to address any adverse effects? The authors reviewed international studies of the occupational health and safety (OHS) effects of downsizing/restructuring and increased job insecurity undertaken over the past 20 years. After imposing quality filters, they obtained 86 studies. Analysis revealed that 73 (85%) of the studies found poorer OHS outcomes (using a range of measures). Studies were examined to see whether they provided clues as to the reasons for negative outcomes.

## 2008

Cawley, J. é. et Kenkel, D. S. é. (2008). The economics of health behaviours. 3 volumes, Cheltenham : Edmard Elgar Publishing  
[http://www.e-elgar.co.uk/bookentry\\_main.lasso?id=3954](http://www.e-elgar.co.uk/bookentry_main.lasso?id=3954)

This three-volume set brings together the most important and interesting papers on the economics of health behaviours such as smoking, drinking, drug use, and risky sex. Volume I explores the theoretical foundations; it also includes empirical papers on the household production of health and the link between schooling and health. Volume II covers research into the prediction and explanations of health behaviours and into the labour market consequences of unhealthy behaviour. Volume III features interactions between health behaviours and the impact of related public policies. This authoritative collection will be of particular interest to economists, social scientists and health services researchers. 85 articles, dating from 1950 to 2006 Contributors include: M.C. Auld, G. Becker, D. Cutler, M. Grossman, J. Gruber, A. Jones, J. Mullahy, T. Philipson, C. Ruhm, J. Sindelar, F. Sloan, J. Van Ours.

Cooper, D., et al. (2008). "Unemployed, Uneducated and Sick: The Effects of Socio-economic Status on Health Duration in the European Union." Journal of the Royal Statistical Society: Series A (Statistics in Society) **171**(4): 939-952.  
<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291467-985X/issues>

We employ a hazard function approach to estimate the effect of socio-economic and individual characteristics on the length of time that an individual remains in good health. The European Community Household Panel data set, for 13 European countries, for the years 1994-2002 is used. The study employs a relatively objective measure of physical health, the physical and mental health problems, illnesses and disabilities measure. The results show that socio-economic status does affect the likelihood of individuals entering bad health. In particular, unemployment experience increases and educational attainment decreases the probability that a person will cease to enjoy good health. Income effects are, however, somewhat weaker, being confined to a small number of countries and being mainly observed only for the highest income quartile. Age and gender effects are also found.

Lau, B. et Knardahl, S. (2008). "Perceived job insecurity, job predictability, personality, and health." J Occup Environ Med **50**(2): 172-181.

OBJECTIVE: The present study sought to determine whether job insecurity is associated with personality traits and beliefs. In addition, it was tested whether aspects of personality confounded the relationships between job insecurity and health, or moderated this

association. METHODS: At the first data collection, 5163 persons participated, and at the second data collection, 1946 persons of a random sample participated. Data were obtained from Oslo Health Study. RESULTS: The job insecurity aspect concerning confidence in having a good job in 2 years was more strongly related to the health variables, and particularly with mental distress, compared with other aspects of job insecurity. Type-A behavior predicted an increase in upper back pain (beta 0.07), while optimism predicted a change in lower back pain (beta -0.07). CONCLUSIONS: Job insecurity is associated with health; this association is strongest for mental distress and self-reported health, and weaker for back-pain.

Luechinger, S., et al. (2008). Why does unemployment hurt the employed?: evidence from the life satisfaction gap between the public and private sectors, Federal Reserve Bank of Boston, Public Policy Discussion Paper: 08-1.

High rates of unemployment entail substantial costs to the working population in terms of reduced subjective well-being. This paper studies the importance of individual economic security, in particular, job security, in workers' well-being by exploiting sector-specific institutional differences in the exposure to economic shocks. Public servants have stricter dismissal protection and face a lower risk of their organization's bankruptcy than do private sector employees. The empirical results for individual panel data for Germany and repeated cross-sectional data for the United States and the European Union show that the sensitivity of subjective well-being to fluctuations in unemployment rates is much lower in the public sector than in the private. This suggests that increased economic insecurity constitutes an important welfare loss associated with high general unemployment.

Robone, S., et al. (2008). Contractual Conditions, Working conditions, Health and Well-Being in the British Household Panel Survey. HEDG Working Paper; 08/19. York HEDG: 36, tabl., ann. [http://www.york.ac.uk/res/herc/documents/wp/08\\_19.pdf](http://www.york.ac.uk/res/herc/documents/wp/08_19.pdf)

We consider the effects of contractual and working conditions on self-assessed health and psychological well-being using twelve waves (1991/92 ? 2002/2003) of the British Household Panel Survey. While one branch of the literature suggests that 'atypical' contractual conditions have a significant impact on health and well-being, another suggests that health is damaged by adverse working conditions. As far as we are aware, previous studies have not explicitly considered the two factors jointly. Our aim is to combine the two branches of the literature to assess the distinct effects of contractual and working conditions on health and psychological well-being and how these effects vary across individuals. For self-assessed health the dependent variable is categorical, and we estimate non-linear dynamic panel ordered probit models, while for psychological well-being we estimate a dynamic linear specification. Our estimates show that being unsatisfied with the number of hours worked has a negative influence on the health of individuals who have a part-time job. Having a high level of employability appears to influence positively the health and psychological well-being of individuals with temporary job arrangements. Family structure appears to influence the health and well-being of workers with atypical contractual conditions.

Salma, M. (2008). Job loss does not cause ill health. HEDG Working Paper; 08/016. York HEDG: 33, tabl. [http://www.york.ac.uk/res/herc/documents/wp/08\\_16.pdf](http://www.york.ac.uk/res/herc/documents/wp/08_16.pdf)

I use longitudinal data from the Health and Retirement Study to estimate the effect of job loss on health for near elderly employees. Job loss is a major cause of economic insecurity for working age individuals, and can cause reduction in income, and loss of health insurance. To

control for possible reverse causality, this study focuses on people who were laid off for an exogenous reason - the closure of their previous employers' business. I find that the unemployed are in worse health than employees, and that health reasons are a common cause of job termination. In contrast, I find no causal effect of exogenous job loss on various measures of health. This suggests that the inferior health of the unemployed compared to the employed could be explained by reverse causality. I also use instrumental variable regression to estimate the effect of loss of health insurance, loss of income, and re-employment on health, and again find no statistically significant effects.

Stansfeld, S. A., et al. (2008). "Psychosocial work characteristics and anxiety and depressive disorders in midlife: the effects of prior psychological distress." *Occup Environ Med* **65**(9): 634-642.

**OBJECTIVES:** The association between work stressors and adult psychiatric diagnoses may be biased by prior psychological distress influencing perception of work or selection into unfavourable work. This study examines the extent to which the association between work stressors and adult psychiatric diagnoses is explained by associations with earlier psychological distress and whether childhood and early adulthood psychological distress influences reported midlife work characteristics. **METHODS:** Follow-up at 45 years of age of 8243 participants in paid employment from the 1958 British Birth Cohort. Karasek's work characteristics and psychiatric diagnoses (Revised Clinical Interview Schedule) were measured at 45 years. Childhood internalising and externalising problems were measured at 7, 11 and 16 and malaise at 23 and 33 years. **RESULTS:** Internalising behaviours in childhood and early adult psychological distress predicted adverse work characteristics in mid-adulthood. High job demands (women: relative risk (RR) = 1.75, 95% CI 1.2 to 2.5; men: RR = 4.99, 95% CI 2.5 to 10.1), low decision latitude (RR = 1.46, 95% CI 1.1 to 1.9), high job strain (OR = 1.88, 95% CI 1.5 to 2.4), low work social support (RR = 1.97, 95% CI 1.5 to 2.6) and high job insecurity (OR = 1.86, 95% CI 1.4 to 2.4) were associated with mid-adulthood diagnoses. The association between work stressors and mid-adulthood diagnoses remained after adjustment for internalising behaviours and malaise at 23 and 33 years although diminished slightly in magnitude (eg, adjusted RR for support = 1.82, 95% CI 1.4 to 2.4; job strain OR = 1.78, 95% CI 1.4 to 2.3). **CONCLUSIONS:** Childhood and early adulthood psychological distress predict work characteristics in mid-adulthood but do not explain the associations of work characteristics with depressive episode and generalised anxiety disorder in midlife. Work stressors are an important source of preventable psychiatric diagnoses in midlife. Psychological distress may influence selection into less advantaged occupations with poorer working conditions that may increase the risk of future depressive and anxiety disorders.

Steenland, K. et Pinkerton, L. E. (2008). "Mortality Patterns following Downsizing at Pan American World Airways." *American Journal of Epidemiology* **67**(1): 1-6.

There are only a small number of studies on the health effects of involuntary unemployment (e.g., downsizing), and results are contradictory. The authors studied the mortality through 2002 of 13,370 Pan American World Airways employees who were born before 1940 and whose records were available after the company's bankruptcy in 1991. The cohort was divided into those who left work voluntarily (55%), involuntarily (39%), and because of illness (6%). The mean year of first employment was 1963, the mean year of last employment was 1987, and the mean age at leaving the company was 55 years. Of those who left involuntarily, 56% left at the time of bankruptcy in December 1991 or later. Twenty-two percent of the cohort died during follow-up, which began at the time of leaving the company. Standardized mortality ratios relative to the US population for all causes for those who left voluntarily, involuntarily, and because of illness were 0.72 (95% confidence interval

(CI): 0.69, 0.76), 0.69 (95% CI: 0.65, 0.74), and 2.40 (95% CI: 2.22, 2.60), respectively. Ischemic heart disease mortality showed a similar pattern. Internal analyses comparing involuntary to voluntary leavers after adjusting for age, race, sex, calendar time, and education yielded all-cause and ischemic heart disease rate ratios of 0.96 (95% CI: 0.87, 1.07) and 1.11 (95% CI: 0.93, 1.35), respectively. Subanalyses of those who left involuntarily at age  $\geq 60$  years, or those who left involuntarily at the time of bankruptcy, did not indicate any excess mortality (all-cause standardized mortality ratios  $\approx$  0.69 and 0.64, respectively). These data do not indicate that mortality among those who left involuntarily was higher than for those who left voluntarily. Both groups showed a strong healthy worker effect.

## 2007

Coley, R. L., et al. (2007). "Maternal Functioning, Time, and Money: The World of Work and Welfare." *Child Youth Serv Rev* **29**(6): 721-741.

Numerous studies have assessed families' employment and financial stability following welfare reform. Yet little research has addressed whether welfare and work transitions are linked with other changes in family functioning. Using a representative sample of approximately 2,000 low-income urban families from the Three-City Study, analyses assessed whether mothers' welfare and employment experiences over a two-year period following welfare reform were related to changes in family well-being. Lagged regression models controlling for family characteristics and earlier levels of functioning found that moving into employment and stable employment (of 30 hours or more per week) were linked to substantial increases in income and improvements in mothers' psychological well-being. Movements into employment also were associated with declines in financial strain and food insecurity. Sustained or initiated welfare receipt was related to relative declines in income, physical health, and psychological well-being, but also to improved access to medical care. In contrast, mothers' welfare and work experiences showed very limited relations to changes in the quality of parenting or of children's home environments. These patterns were similar for families with young children and those with adolescent children. Results suggest that parenting behaviors are more resistant to change than are maternal emotional and economic functioning.

Halliday, T. J. (2007). "Business cycles, migration and health." *Soc Sci Med* **64**(7): 1420-1424.  
<https://www.ncbi.nlm.nih.gov/pubmed/17196315>

We investigate the proposition that illness poses as an obstacle to one's ability to use migration to hedge the business cycle. We employ data on migration, regional unemployment rates and health status from 10 years (1984-1993) of the US Panel Study of Income Dynamics. Our results provide considerable support for this proposition. The evidence is the strongest for men, but we also find weaker evidence for married women. These results suggest that--ceteris paribus--aggregate health outcomes in an area should improve when the regional economy expands.

Kuhn, A., et al. (2007). The public health costs of unemployment. Lausanne Université de Lausanne: 51, tabl., fig.

This paper studies how unemployment affects public health costs. We use plant closure as an instrument for unemployment because bankruptcy is unlikely to be caused by deteriorating health but has a strong impact on workers subsequent employment. The empirical analysis is

based on an extremely rich data set with comprehensive information on various types of health care costs and day-by-day work history of individual workers. Our central findings are (i) expenditures on medical treatments are not strongly affected by joblessness, (ii) lack of employment reduces mental health for men but not for women, and (iii) sickness benefit payments strongly increase due to job loss. Our results also show that OLS estimates strongly overestimate the causal effect of unemployment on public health costs.

Sciulli, D., et al. (2007). Unemployment durability and disability : evidence from Portugal. IZA Discussion Paper Series ; n° 3028. Bonn IZA: 20 , tabl., fig.  
<http://ftp.iza.org/dp3028.pdf>

In this paper we use Portuguese data on individual (multiple) unemployment spells and apply semi-parametric duration models to investigate the effects of different types of disabilities on (re)employment probabilities. We find that disabled persons with muscular, skeletal, geriatric and sensorial problems experience the longest unemployment spells. Organic (blind, deaf or linguistic) disabilities also significantly reduce the probability of finding a job, while intellectual or psychological disabilities do not. We also find that having previous employment experience and vocational training raise the probability of leaving unemployment into employment. Negative duration dependence and unobserved heterogeneity are also found in the data. Policies that seek to promote job accessibility should take into account the heterogeneous nature of the effects of different disabilities on reemployment.

## 2006

Cooper, D., et al. (2006). "The Health Hazards of Unemployment and Poor Education: The Socioeconomic Determinants of Health Duration in the European Union." Economics and Human Biology 4(3): 273-297.  
<http://search.ebscohost.com/login.aspx?direct=true&db=ecn&AN=0885687&lang=fr&site=ehost-live>  
<http://dx.doi.org/10.1016/j.ehb.2006.06.001>  
<http://www.sciencedirect.com/science/journal/1570677X>

The effect of socioeconomic status on the likelihood that an individual enters a period of poor health is examined using an Accelerated Failure Time methodology. This study employs data from the European Community Household Panel for the years 1994-2002 across 13 European countries, using the Physical and Mental Health Problems, Illnesses and Disabilities measure of physical health. Some socioeconomic status indicators do impact on the length of time an individual remains in good health--these being unemployment, which has a negative effect, and education, which has a positive effect--but others, such as income, have far less of an impact. Age and gender effects are also found.

Lund, T., et al. (2006). "Return to work among sickness-absent Danish employees: prospective results from the Danish Work Environment Cohort Study/National Register on Social Transfer Payments." Int J Rehabil Res 29(3): 229-235.

This study investigates the determinants within socio-demography, health behaviour, employer characteristics, and psychosocial and physical work environment for return to work. In 2000, a total of 5357 employees were interviewed regarding age, gender, family status, education, health behaviour, employer characteristics and work environment. They were followed in a national register for 18 months in order to identify subjects with 2 weeks

or more of sickness absence. They were followed for an additional 12 months in order to establish associations between baseline measurements and time to first return to work. A total of 930 (17.4%) employees experienced sickness absence in the 18 months after baseline. During the 12-month follow-up, 856 (92.0%) returned to work, the mean absence period being 6.6 weeks. Prolonged time to first return to work was associated with female gender, increased age, no post-school education, being employed by a public employer, working at a workplace with 20 or more employees, high emotional demands in work, high job insecurity and sedentary work. There were no associations between health behaviour variables and return to work. The study indicates a potential for promoting return to work through interventions targeting emotional job demands, job insecurity and decreasing the risks associated with sedentary work.

## 2005

Cheng, Y., et al. (2005). "Job insecurity and its association with health among employees in the Taiwanese general population." *Soc Sci Med* 61(1): 41-52.

<https://www.ncbi.nlm.nih.gov/pubmed/15847960>

As employers respond to intensive global competition through the deregulation of labor, job insecurity has become a widespread problem. It has been shown to have significant health impacts in a growing number of workers, but less is known about its social distribution, the mechanisms through which it may act, and the moderating effects of gender, socioeconomic position, and company size. Utilizing data from a national survey of a representative sample of paid employees in Taiwan, we examined the prevalence of job insecurity and its associations with psychosocial work characteristics and health status. A total of 8705 men and 5986 women aged between 25 and 65 years old were studied. Information on perceived job insecurity, industrial and occupational types, psychosocial work characteristics as assessed by the Job Strain model, and various measures of health status were obtained by a self-administered questionnaire. The overall prevalence of job insecurity was high (50%). Job insecurity was more prevalent among employees with lower education attainment, in blue-collar and construction workers, those employed in smaller companies, and in older women. Insecure employees also reported lower job control, higher job demands, and poor workplace social support, as compared with those who held secure positions. Regression analyses showed that job insecurity was strongly associated with poor health, even with adjustment of age, job control, job demands, and work place social support. The deleterious effects of job insecurity appeared to be stronger in men than women, in women who held managerial or professional jobs than women in other employment grades, and in those working in larger companies than smaller ones. The findings of this study suggest that perceived job insecurity is an important source of stress, and it is accompanied with adverse psychosocial work conditions and poor health. High-risk groups were identified for further investigation.

Cummings, G., et al. (2005). "Mitigating the impact of hospital restructuring on nurses: the responsibility of emotionally intelligent leadership." *Nurs Res* 54(1): 2-12.

BACKGROUND: A decade of North American hospital restructuring in the 1990s resulted in the layoff of thousands of nurses, leading to documented negative consequences for both nurses and patients. Nurses who remained employed experienced significant negative physical and emotional health, decreased job satisfaction, and decreased opportunity to provide quality care. OBJECTIVE: To develop a theoretical model of the impact of hospital

restructuring on nurses and determine the extent to which emotionally intelligent nursing leadership mitigated any of these impacts. METHODS: The sample was drawn from all registered nurses in acute care hospitals in Alberta, Canada, accessed through their professional licensing body (N = 6,526 nurses; 53% response rate). Thirteen leadership competencies (founded on emotional intelligence) were used to create 7 data sets reflecting different leadership styles: 4 resonant, 2 dissonant, and 1 mixed. The theoretical model was then estimated 7 times using structural equation modeling and the seven data sets. RESULTS: Nurses working for resonant leaders reported significantly less emotional exhaustion and psychosomatic symptoms, better emotional health, greater workgroup collaboration and teamwork with physicians, more satisfaction with supervision and their jobs, and fewer unmet patient care needs than did nurses working for dissonant leaders. DISCUSSION: Resonant leadership styles mitigated the impact of hospital restructuring on nurses, while dissonant leadership intensified this impact. These findings have implications for future hospital restructuring, accountabilities of hospital leaders, the achievement of positive patient outcomes, the development of practice environments, the emotional health and well-being of nurses, and ultimately patient care outcomes.

Dragano, N., et al. (2005). "Organisational downsizing and work stress: testing synergistic health effects in employed men and women." Journal of Epidemiology and Community Health **59**(8): 694-699.

Study objective: To systematically study the separate and combined effects of organisational downsizing and work related stress on a measure of health in "survivors of layoffs". Design: Using Rothman's approach, separate and combined effects of the two exposures in estimating the risk of poor self rated health (work related symptoms) are analysed in a large sample of male and female employees. Setting: 0.1% cross sectional sample of the German working population. Participants: 12 240 men and 10 319 women, aged 16 to 59 years, surveyed in 1998–1999. Main results: Compared with the reference group, the group of participants who were simultaneously exposed to downsizing and work related stress (effort-reward imbalance) exhibited odds ratios (OR) of three or more work related symptoms that were by far higher (OR 4.41 in men and OR 5.37 in women) than those associated with single exposures. Altogether 21% (men) and 31% (women) of the effect size of the combined exposure was attributable to synergistic interaction. Conclusion: Although reduced health associated with organisational downsizing is partly attributable to an increase in work related stress these findings show an additional synergy effect produced by the combined exposure to both conditions.

Petterson, I. L., et al. (2005). "Are trends in work and health conditions interrelated? A study of Swedish hospital employees in the 1990s." J Occup Health Psychol **10**(2): 110-120.

Swedish hospital personnel were followed over an 8-year period, characterized by staff redundancies and restructuring processes. Self-rated and administrative data sets from 1994 to 2001 allowed for studying long-term consequences of organizational instability for staff health and work conditions. The aim was to identify, on a work-unit level, trends in work and health conditions and their interdependence. Regression analysis showed a downward trend in mental health and an upward trend in long-term sick leave. Increasing trends of work demands were accompanied by deteriorating mental health, and decreasing time to plan work showed the strongest association with increasing long-term sick leave. Job satisfaction and support were decreasing. A stable short-term sick leave rate over years related to lack of support.

## 2003

Mohren, D. C., et al. (2003). "Job insecurity as a risk factor for common infections and health complaints." *J Occup Environ Med* **45**(2): 123-129.

The aim of this study was to investigate the cross-sectional and longitudinal effect of job insecurity on common infections and health complaints. Self-administered questionnaire data from the Maastricht Cohort Study (n = 12, 140) were used. We used Generalized Estimating Equations analyses to calculate pooled odds ratios (ORs) and 95% confidence intervals. A cross-sectional relationship between job insecurity and common infections or health complaints was found. For the longitudinal relationship, the largest effect was found for flu-like illness (OR 1.39; CI = 1.22-1.57) and health complaints (OR 1.51; CI = 1.39-1.64). We additionally corrected for health behavior, the presence of a long-standing illness, and work-related demands, resulting in lower ORs. An increase in common infections or health complaints has a substantial impact on employee well-being and may result in economic consequences for the company.

## Impact de l'insécurité au travail sur la santé mentale

### ÉTUDES FRANÇAISES

## 2016

Blasco, S. et Brodaty, T. (2016). "Chômage et santé mentale en France." *Economie et Statistique*(486-487): 17-44.

[http://www.insee.fr/fr/ffc/docs\\_ffc/ES486B.pdf](http://www.insee.fr/fr/ffc/docs_ffc/ES486B.pdf)

Nous utilisons le panel Santé et itinéraire professionnel pour étudier l'effet causal du chômage sur la santé mentale en France. Plus précisément, nous cherchons à évaluer si l'expérience et la durée de chômage augmentent les troubles mentaux dits courants de type dépression majeure et trouble d'anxiété généralisée. Nous mobilisons l'historique de problèmes de santé depuis l'enfance et mettons en œuvre une méthode à variable instrumentale afin de tenir compte des problèmes d'hétérogénéité inobservée et d'endogénéité du chômage. Nos résultats indiquent que l'expérience du chômage a un effet sur les hommes alors que ce n'est pas le cas pour les femmes. Nous montrons également que l'effet se concentre sur les hommes en deuxième partie de carrière. Ces résultats sont robustes à nos différentes mesures de santé mentale. Du point de vue des politiques publiques, cette étude montre qu'un accompagnement psychologique ciblé et efficace des chômeurs permettrait de prévenir la survenue de troubles mentaux (résumé d'auteur).

## 2015

Dalglis, S. L., et al. (2015). "Work characteristics and suicidal ideation in young adults in France." *Soc Psychiatry Psychiatr Epidemiol* **50**(4): 613-620.

PURPOSE: Job insecurity, unemployment, and job strain can predict psychological distress and suicide risk. Young people, who are particularly at risk of suicide, may be especially

vulnerable to the deterioration of labor market conditions as a result of the current economic crisis in Europe. We aimed to examine the effects of work and employment characteristics on suicidal ideation in a contemporary sample of young adults. METHODS: Using data from a sample of French young adults surveyed in 2011 (TEMPO study, N = 1,214, 18-37 years old) and their parents who took part in a longitudinal cohort study, we used multiple logistic regression to examine the relationship between job insecurity, lifetime and recent unemployment and suicidal ideation in the past 12 months. Our analyses were adjusted for factors associated with suicidal risk including age, sex, educational attainment, living with a partner, insufficient social support, alcohol abuse, depression and parental history of depression. RESULTS: Five percent of the sample reported suicidal ideation in the preceding 12 months. Controlling for all covariates, the likelihood of suicidal ideation was associated with job insecurity (OR 2.24, 95% CI 1.08-4.63), lifetime unemployment (OR 2.25, 95% CI 1.17-4.29), and recent unemployment (OR 2.10, 95% CI 1.04-4.25). After stratifying by educational attainment, the association between suicidal ideation and job insecurity was particularly notable for participants with low educational attainment (OR 9.28, 95% CI 1.19-72.33). CONCLUSION: Young adults who have unstable and unfavorable employment characteristics are disproportionately likely to be suicidal, which should be monitored, particularly in times of economic downturn.

Laanani, M., et al. (2015). "Association entre taux de chômage et suicide, par sexe et classe d'âge, en France métropolitaine, 2000-2010." *Bulletin Epidemiologique Hebdomadaire*(1-2): 2-6.  
[http://www.invs.sante.fr/beh/2015/1-2/2015\\_1-2\\_1.html](http://www.invs.sante.fr/beh/2015/1-2/2015_1-2_1.html)

[BDSP. Notice produite par InVS AR0xs8GB. Diffusion soumise à autorisation]. Introduction : l'augmentation du taux de chômage qui a accompagné la crise économique de 2008 est associée en France à une augmentation du taux de suicide. L'objectif de cette étude était d'estimer l'association écologique par sexe et âge entre les taux de suicide et de chômage en France métropolitaine entre 2000 et 2010. Méthodes : les analyses statistiques ont fait appel à un modèle quasi-Poisson. La variable à expliquer était le taux de suicide ; la variable explicative était le taux de chômage. Ce modèle ajustait sur l'âge, le sexe, la région de domicile, le trimestre de décès et une tendance temporelle linéaire. Les classes d'âge 15-24 ans, 25-49 ans, 50-64 ans et  $\geq 65$  ans ont été étudiées. Résultats : pour une augmentation de 10% du taux de chômage, le taux de suicide tous sexes confondus a augmenté significativement de 1,5% (IC95% : [0,7-2,3%]). Cette association reste significative uniquement chez les hommes (augmentation de 1,8% [0,9-2,7]), en particulier les hommes de 25-49 ans (augmentation de 2,6% [1,3-3,9%]). Conclusion : l'association observée en France entre taux de suicide et de chômage concerne particulièrement les hommes en âge de travailler. Les démarches de prévention du suicide mises en oeuvre à destination de la population active doivent cibler les hommes jeunes en priorité.

Mette, C. (2015). "Chômage et santé mentale, des liens ambivalents." *Dares Analyses*(067): 6.  
<http://travail-emploi.gouv.fr/IMG/pdf/2015-067.pdf>

Le chômage peut survenir en raison de problèmes de santé mentale, mais également fragiliser celle-ci. Les personnes ayant connu le chômage entre 2006 et 2010 signalent davantage de symptômes dépressifs en 2006 et avaient connu plus de problèmes de santé, en général, au cours de leur carrière. Le passage par le chômage entre 2006 et 2010 a des effets négatifs sur la santé mentale seulement pour les hommes. Ces derniers sont d'autant plus nombreux à connaître des épisodes dépressifs que leur durée de chômage a été longue. Cet impact est particulièrement marqué pour ceux n'ayant été que faiblement exposés aux risques psychosociaux au cours de leur vie professionnelle.

2013

Murcia, M., et al. (2013). "Psychosocial work factors, major depressive and generalised anxiety disorders: results from the French national SIP study." *J Affect Disord* **146**(3): 319-327.

**BACKGROUND:** Anxiety and depression are prevalent mental disorders in working populations. The risk factors of these disorders are not completely well known. Developing knowledge on occupational risk factors for mental disorders appears crucial. This study investigates the association between various classical and emergent psychosocial work factors and major depressive and generalised anxiety disorders in the French working population. **METHODS:** The study was based on a national random sample of 3765 men and 3944 women of the French working population (SIP 2006 survey). Major Depressive Disorder (MDD) and Generalised Anxiety Disorder (GAD) were measured using a standardised diagnostic interview (MINI). Occupational factors included psychosocial work factors as well as biomechanical, physical, and chemical exposures. Adjustment variables included age, occupation, marital status, social support, and life events. Multivariate analysis was performed using logistic regression analysis. **RESULTS:** Low decision latitude, overcommitment, and emotional demands were found to be risk factors for both MDD-GAD among both genders. Other risk factors were observed: high psychological demands, low reward, ethical conflict, and job insecurity, but differences were found according to gender and outcome. Significant interaction terms were observed suggesting that low decision latitude, high psychological demands, and job insecurity had stronger effects on mental disorders for men than for women. **LIMITATIONS:** Given the cross-sectional study design, no causal conclusion could be drawn. **CONCLUSIONS:** This study showed significant associations between classical and emergent psychosocial work factors and MDD-GAD. Preventive actions targeting various psychosocial work factors, including emergent factors, may help to reduce mental disorders at the workplace.

#### ÉTUDES INTERNATIONALES

2017

Blazquez-Fernandez, C., et al. (2017). "What Does It Drive the Relationship between Suicides and Economic Conditions? New Evidence from Spain." *Social Indicators Research* **130**(3): 1087-1099.

<http://link.springer.com/journal/volumesAndIssues/11205>

In this paper we analyse suicides across the 17 Spanish regions over the period 2002-2013. In doing so, we estimate count panel data models considering gender differences taking into account before and during economic crisis periods. A range of aggregate socioeconomic regional-level factors have been considered. Our empirical results show that: (1) a socioeconomic urban-rural suicide differentials exist, (2) there exists a Mediterranean suicide pattern; and (3) unemployment levels have a marked importance during the crisis period. The results of this study may have usefulness for suicide prevention in Spain.

Bubonya, M., et al. (2017). The Bilateral Relationship between Depressive Symptoms and Employment Status. *IZA Discussion Paper;10653*. Bonn IZA: 47 , tabl.

<http://ftp.iza.org/dp10653.pdf>

This paper analyzes the bilateral relationship between depressive symptoms and employment status. We find that severe depressive symptoms are partially a consequence of economic inactivity. The incidence of depressive symptoms is higher if individuals have been out of a job for an extended period. Men's mental health falls as they exit the labor force, while women's worsens only after they have been out of the labor force for a period of time. Entering unemployment is also associated with a substantial deterioration in mental health, particularly for men. We also find that severe depressive symptoms, in turn, lead to economic inactivity. Individuals are less likely to be labor force participants or employed if they experience severe depressive symptoms. Men's probability of being unemployed rises dramatically with the onset of depressive symptoms; women's unemployment is increased by protracted depressive symptoms.

Buffel, V., et al. (2017). "The social norm of unemployment in relation to mental health and medical care use: the role of regional unemployment levels and of displaced workers." *Work, employment and society* **31**(3): 501-521.

<http://journals.sagepub.com/doi/abs/10.1177/0950017016631442>

The relationships between unemployment, mental health (care) and medication use among 50–65 year-old men (N = 11,789) and women (N = 15,118) are studied in Europe. Inspired by the social norm theory of unemployment, the relevance of regional unemployment levels and workplace closure are explored, using multilevel analyses of data from the Survey of Health, Ageing and Retirement. In line with the social norm theory, the results show that – only for men – displaced workers are less depressed and use less medication than the non-displaced unemployed. However, they report more depressive symptoms than the employed, which supports the causal effect of unemployment on mental health. Non-displaced unemployed men are also more likely to consume medication than the displaced unemployed. In addition, using regional unemployment as a proxy for the social norm of unemployment can be questioned when studying mental health effects, as it seems to be a stronger measurement of labour market conditions than of the social norm of unemployment, especially during a recession.

Canivet, C., et al. (2017). "The negative effects on mental health of being in a non-desired occupation in an increasingly precarious labour market." *SSM - Population Health* **3**: 516-524.

<http://www.sciencedirect.com/science/article/pii/S2352827316301811>

Precarious employment has been associated with poor mental health. Moreover, increasing labour market precariousness may cause individuals to feel 'locked-in', in non-desired workplaces or occupations, out of fear of not finding a new employment. This could be experienced as a 'loss of control', with similar negative health consequences. It is plausible that the extent to which being in a non-desired occupation (NDO) or being in precarious employment (PE) has a negative impact on mental health differs according to age group. We tested this hypothesis using data from 2331 persons, 18–34, 35–44, and 45–54 years old, who answered questionnaires in 1999/2000, 2005, and 2010. Incidence rate ratios (IRR) were calculated for poor mental health (GHQ-12) in 2010, after exposure to NDO and PE in 1999/2000 or 2005. NDO and PE were more common in the youngest age group, and they were both associated with poor mental health. In the middle age group the impact of NDO was null, while in contrast the IRR for PE was 1.7 (95% CI: 1.3–2.3) after full adjustment. The pattern was completely the opposite in the oldest age group (adjusted IRR for NDO 1.6 (1.1–2.4) and for PE 0.9 (0.6–1.4)). The population attributable fraction of poor mental health was 14.2% and 11.6%, respectively, for NDO in the youngest and oldest age group, and 17.2% for

PE in the middle age group. While the consequences of PE have been widely discussed, those of NDO have not received attention. Interventions aimed at adapting work situations for older individuals and facilitating conditions of job change in such a way as to avoid risking unemployment or precarious employment situations may lead to improved mental health in this age group.

Cygan-Rehm, K., et al. (2017). Bounding the Causal Effect of Unemployment on Mental Health: Nonparametric Evidence from Four Countries. *IZA Discussion Paper;10652*. Bonn IZA: 36 , tabl., fig.

<http://ftp.iza.org/dp10652.pdf>

An important, yet unsettled, question in public health policy is the extent to which unemployment causally impacts mental health. The recent literature yields varying findings, which are likely due to differences in data, methods, samples, and institutional settings. Taking a more general approach, we provide comparable evidence for four countries with different institutional settings – Australia, Germany, the UK, and the US – using a nonparametric bounds analysis. Relying on fairly weak and partially testable assumptions, our paper shows that unemployment has a significant negative effect on mental health in all countries. Our results rule out effects larger than a quarter of a standard deviation for Germany and half a standard deviation for the Anglo-Saxon countries. The effect is significant for both men and women and materialises already for short periods of unemployment. Public policy should hence focus on early prevention of mental health problems among the unemployed.

Davies, A. R., et al. (2017). Mass unemployment events (MUES) : Prevention and response from a public health perspective. from a public health perspective: 80 , tab., graph., fig.

<http://www.wales.nhs.uk/sitesplus/documents/888/Watermarked%20PHW%20Mass%20Unemployment%20Report%20E%2815%29.pdf>

In the year following job loss due to mass unemployment events, workers can experience double the risk of death from heart attack or stroke and even greater increases in risk from alcohol related disease. Detrimental impacts on health can last for decades with family members sometimes affected almost as much as those facing redundancy. Working with experts across the world, Public Health Wales has led new work on public health approaches to preventing and preparing for Mass Unemployment Events which focuses especially on addressing their impact on the health of individuals, families and communities. Report author Dr Alisha Davies, Head of Research and Development at Public Health Wales, said: ?Internationally large scale redundancies are not uncommon and can be devastating for those directly affected, including families and communities. However, there is much we can do to prevent, prepare and limit the impact on health when these events do happen. This report highlights the importance of ensuring health and wellbeing is at the core of preventative and responsive action; ; La fermeture locale d'une unité de production entraîne la destruction de nombreux emplois, entraînant localement une conjoncture de chômage de masse. L'organisation britannique Public Health Wales publie un rapport analysant les impacts de ces licenciements sur la santé des populations et présente des mesures pour les prévenir et les limiter. L'altération de la santé suite à la perte d'un emploi est notamment associée à une détérioration des comportements de santé : augmentation de la consommation d'alcool et de tabac, mésusages de médicaments, prise de poids, ... La santé mentale est aussi très affectée par la perte d'emploi avec une augmentation des troubles mentaux, des tentatives de suicide et suicides. Au-delà des effets individuels, le rapport met en évidence d'autres impacts concernant le bien-être du conjoint et des enfants, mais aussi

dans l'ensemble de la communauté où les tensions sociales et le sentiment d'isolement s'exacerbent. Aussi, Public Health Wales propose une réponse de santé publique globale et multisectorielle face aux licenciements de masse. Il s'agit notamment d'identifier précocement les communautés exposées au risque de chômage de masse, de soutenir les chômeurs dans leur insertion professionnelle, mais aussi dans leurs difficultés financières et leur santé, ou encore de développer des actions spécifiques pour les plus vulnérables tels que les chômeurs âgés.

Glavin, P. et Young, M. (2017). "Insecure People in Insecure Places: The Influence of Regional Unemployment on Workers' Reactions to the Threat of Job Loss." *J Health Soc Behav* **58**(2): 232-251.

Social comparison theory predicts that unemployment should be less distressing when the experience is widely shared, but does this prediction extend beyond the unemployed to those who are at risk of job loss? Research demonstrates a link between aggregate unemployment and employed individuals' perceptions of job insecurity; however, less is known about whether the stress associated with these perceptions is shaped by others' unemployment experiences. We analyze a nationally representative sample of Canadian workers (Canadian Work, Stress, and Health study; N = 3,900) linked to census data and test whether regional unemployment influences the mental health consequences of job insecurity. Multilevel analyses provide more support for the social norm of insecurity hypothesis over the amplified threat hypothesis: the health penalties of job insecurity are weaker for individuals in high-unemployment regions. This contingency is partially explained by the ability of insecure workers in poor labor market contexts to retain psychological resources important for protecting mental health.

Kim, C. et Cho, Y. (2017). "Does Unstable Employment Have an Association with Suicide Rates among the Young?" *Int J Environ Res Public Health* **14**(5).

Although a growing body of literature has indicated that unemployment has a positive association with suicide, the dynamic aspects of unstable employment have not yet been considered in suicidology. This study explored the association between employment stability and completed suicide among people aged 25-34 years in 20 OECD (Organization for Economic Cooperation and Development) countries with time-series data (1994-2010). In order to consider the different aspects of unstable employment, we tested the impacts of employment protection legislation indicators as another proxy of job insecurity (employed, but unstable) apart from unemployment rates. Covariates, including economic growth rates, GDP per capita, fertility rates, and divorce rate, were controlled for. The analysis was designed to be gender- and age-specific, where observations with ages of 25-29 were separated from those with ages of 30-34. Random effect models were applied to examine changes over time in suicide rates, and other models were presented to check robustness. The results showed that it is a low level of employment protection, rather than unemployment itself, that was associated with increased suicide rates among all of the studied populations. The magnitude of the effect differed by gender.

McDavid, D. (2017). "Strengthening mental health systems to respond to economic crises." *Die Psychiatrie - Grundlagen und Perspektiven* **14**(2): 61-66.

Mental health systems appear to be among the first casualties of an economic downturn. Growing global political and economic uncertainty in Europe and elsewhere may mean that the next major economic crisis is not far off. Objectives: This paper considers what mental

health systems might do in future to more rapidly respond to the impacts of economic shocks, and reduce the risk and/or mitigate the impacts of poor mental health and deliberate self-harm. It concentrates on two areas of risk to mental health in times of economic shock, namely increasing job insecurity and changing employment conditions, as well as the impacts of unmanageable debt. Addressing the psychological impacts of less job-security and of surviving a downsizing in the workplace may be just as important to mental health as unemployment in an economic crisis. There is also evidence that unmanageable debt is associated with poor mental health and risk of suicide and self-harm. Conclusions: Mental health systems need to develop plans for a rapid response to economic shocks, with a strong focus on a public health approach to mental health. Engaging and collaborating with a wide range of stakeholders, as well as secure budgets, will be imperative to effective

Mutambudzi, M., et al. (2017). "Effects of work-family conflict and job insecurity on psychological distress." Occup Med (Lond).

Background: Work-family conflict (WFC) and job insecurity are important determinants of workers' mental health. Aims: To examine the relationship between WFC and psychological distress, and the co-occurring effects of WFC and job insecurity on distress in US working adults. Methods: This study used cross-sectional data from the 2010 National Health Interview Survey (NHIS) for adults aged 18-64 years. The 2010 NHIS included occupational data from the National Institute for Occupational Safety and Health (NIOSH) sponsored Occupational Health Supplement. Logistic regression models were used to examine the independent and co-occurring effects of WFC and job insecurity on distress. Results: The study group consisted of 12059 participants. In the model fully adjusted for relevant occupational, behavioural, sociodemographic and health covariates, WFC and job insecurity were independently significantly associated with increased odds of psychological distress. Relative to participants reporting WFC only, participants reporting no WFC and no job insecurity had lower odds of moderate and severe distress. Co-occurring WFC and job insecurity was associated with significantly higher odds of both moderate [odds ratio (OR) = 1.55; 95% confidence interval (CI) 1.25-1.9] and severe (OR = 3.57; 95% CI 2.66-4.79) distress. Conclusions: Rates of WFC and job insecurity were influenced by differing factors in working adults; however, both significantly increased risk of adverse mental health outcomes, particularly when experienced jointly. Future studies should explore the temporal association between co-occurring WFC and job insecurity and psychological distress.

Probst, T. M. et Jiang, L. (2017). "European flexicurity policies: Multilevel effects on employee psychosocial reactions to job insecurity." Safety Science.

<http://www.sciencedirect.com/science/article/pii/S0925753517304757>

Increasing emphasis has been placed within the European Union on the development of flexicurity policies, which seek to simultaneously foster organizational competitiveness while ensuring employment security for workers. The purpose of the current study was to examine how country-level differences in European flexicurity policies impact employee psychosocial reactions to perceived job insecurity. By combining individual-level international survey data from 13,738 individuals nested within 19 European countries with country-level indices of flexicurity, multilevel modeling was used to empirically test whether and how employees in countries with differing levels of employment security protections and flexible work arrangements react differently to the perception that their job may be at risk in terms of their affective and stress reactions. Analyses indicated that employee perceptions of job insecurity were significantly related to greater affective insecurity and higher levels of job stress. However, greater enactment of country-level flexicurity (i.e., high flexibility coupled

with high employment security) attenuated those relationships. These findings are discussed in light of recent European events, as well as implications of flexicurity policies on the health and well-being of employees during times of organizational change.

Reichert, A. R. et Tauchmann, H. (2017). "Workforce Reduction, Subjective Job Insecurity, and Mental Health." *Journal of Economic Behavior and Organization* **133**: 187-212.

<http://www.sciencedirect.com/science/journal/01672681>

We examine the link between workforce reduction, subjective job insecurity, and mental health using individual level panel data for private-sector employees in Germany. We first estimate the effect of firm-level workforce reductions on mental health, finding a strong, negative, and statistically significant relationship. We then extensively examine the role of subjective job insecurity as mediating variable and its importance relative to other possible channels for the effect of workforce reduction on mental health. Eventually, as an extension to our analysis, we use life satisfaction as alternative outcome variable.

Watson, B. et Osberg, L. (2017). "Healing and/or breaking? The mental health implications of repeated economic insecurity." *Social Science & Medicine* **2017**.

<http://www.sciencedirect.com/science/article/pii/S0277953617304185>

Current literature confirms the negative consequences of contemporaneous economic insecurity for mental health, but ignores possible implications of repeated insecurity. This paper asks how much a person's history of economic insecurity matters for psychological distress by contrasting the implications of two models. Consistent with the health capital literature, the Healing model suggests psychological distress is a stock variable affected by shocks from life events, with past events having less impact than more recent shocks. Alternatively, the Breaking Point model considers that high levels of distress represent a distinct shift in life state, which occurs if the accumulation of past life stresses exceeds some critical value. Using five cycles of Canadian National Population Health Survey data (2000–2009), we model the impact of past economic insecurity shocks on current psychological distress in a way that can distinguish between these hypotheses. In our sample of 1775 males and 1883 females aged 25 to 64, we find a robust healing effect for one-time economic insecurity shocks. For males, only a recent one-time occurrence of economic insecurity is predictive of higher current psychological distress (0.19 standard deviations). Moreover, working age adults tend to recover from past accumulated experiences of economic insecurity if they were recently economically secure. However, consistent with the Breaking Point hypothesis, males experiencing three or four cycles of recent insecurity are estimated to have a level of current psychological distress that is 0.26–0.29 standard deviations higher than those who were employed and job secure throughout the same time period. We also find, consistent with other literature, distinct gender differences - for working age females, all economic insecurity variables are statistically insignificant at conventional levels. Our results suggest that although Canadians are resilient to one-time insecurity shocks, males most vulnerable to repeated bouts suffer from elevated levels of psychological distress.

## 2016

Barrech, A., et al. (2016). "Mid-life job insecurity associated with subjective well-being in old age: results from the population-based MONICA/KORA study." *Scand J Work Environ Health* **42**(2): 170-174.

**OBJECTIVE:** This study aimed to examine prospectively the influence of exposure to job insecurity during working life on subjective well-being (SWB) after retirement, an association which has not been studied to date. **METHOD:** Data were derived from the prospective population-based MONICA/KORA study conducted in southern Germany. Participants were recruited and data were collected during three independent surveys between 1984-1995 (T1) and followed up in 2009 (T2). The study sample consisted of 1801 employed participants (1146 male/ 655 female) aged 41-72 years at T1 and  $\geq 65$  years at T2, without missing data. Self-administered questionnaires and clinical examinations were used to assess job insecurity and risk factors at T1 and SWB at T2. Mean follow-up was 19.6 years. Logistic regression analyses were performed to determine the association of job insecurity with SWB after retirement. We accounted for an extensive set of sociodemographic, lifestyle-, health- and work-related risk factors. **RESULTS:** At T1, 39.5% of the participants reported job insecurity, which was associated with a 1.40-fold [95% confidence interval (95% CI) 1.08-1.82] risk of low SWB at T2 in models adjusted for sociodemographic and lifestyle- and health-related conditions at T1. Additional adjustment for a set of work-related risk factors at T1 had little effect on this association. **CONCLUSIONS:** Exposure to job insecurity at midlife was associated with low SWB in retirement, even after controlling for an extensive set of risk factors. This shows that the negative effects of unstable working conditions might persist well into retirement, long after cessation of employment.

Cooklin, A. R., et al. (2016). "Change and stability in work-family conflict and mothers' and fathers' mental health: Longitudinal evidence from an Australian cohort." *Soc Sci Med* **155**: 24-34.

Work-family conflict (WFC) occurs when work or family demands are 'mutually incompatible', with detrimental effects on mental health. This study contributes to the sparse longitudinal research, addressing the following questions: Is WFC a stable or transient feature of family life for mothers and fathers? What happens to mental health if WFC increases, reduces or persists? What work and family characteristics predict WFC transitions and to what extent are they gendered? Secondary analyses of 5 waves of data (child ages 4-5 to 12-13 years) from employed mothers (n = 2693) and fathers (n = 3460) participating in the Longitudinal Study of Australian Children were conducted. WFC transitions, across four two-year intervals (Waves 1-2, 2-3, 3-4, and 4-5) were classified as never, conscript, exit or chronic. Significant proportions of parents experienced change in WFC, between 12 and 16% of mothers and fathers for each transition 'type'. Parents who remained in chronic WFC reported the poorest mental health (adjusted multiple regression analyses), followed by those who conscripted into WFC. When WFC was relieved (exit), both mothers' and fathers' mental health improved significantly. Predictors of conscript and chronic WFC were somewhat distinct for mothers and fathers (adjusted logit regressions). Poor job quality, a skilled occupation and having more children differentiated chronic fathers' from those who exited WFC. For mothers, work factors only (skilled occupation; work hours; job insecurity) predicted chronic WFC. Findings reflect the persistent, gendered nature of work and care shaped by workplaces, but also offer tailored opportunities to redress WFC for mothers and fathers. We contribute novel evidence that mental health is directly influenced by the WFC interface, both positively and negatively, highlighting WFC as a key social determinant of health.

D'Angelo, S., et al. (2016). "Job dissatisfaction and the older worker: baseline findings from the Health and Employment After Fifty study." *Occup Environ Med* **73**(8): 512-519.

**OBJECTIVES:** Demographic changes are requiring people to work longer. Labour force

participation might be promoted by tackling sources of job dissatisfaction. We aimed to describe the epidemiology of job dissatisfaction in older British workers, to explore which perceptions of work contribute most importantly, and to assess possible impacts on health. METHODS: Participants aged 50-64 years were recruited from 24 English general practices. At baseline, those currently in work (N=5437) reported on their demographic and employment circumstances, overall job satisfaction, perceptions of their work that might contribute to dissatisfaction, and their general health, mood and well-being. Associations of job dissatisfaction with risk factors and potential health outcomes were assessed cross-sectionally by logistic regression, and the potential contributions of different negative perceptions to overall dissatisfaction were summarised by population attributable fractions (PAFs). RESULTS: Job dissatisfaction was more common among men, below age 60 years, those living in London and the South East, in the more educated and in those working for larger employers. The main contributors to job dissatisfaction among employees were feeling unappreciated and/or lacking a sense of achievement (PAF 55-56%), while in the self-employed, job insecurity was the leading contributor (PAF 79%). Job dissatisfaction was associated with all of the adverse health outcomes examined (ORs of 3-5), as were most of the negative perceptions of work that contributed to overall dissatisfaction. CONCLUSIONS: Employment policies aimed at improving job satisfaction in older workers may benefit from focussing particularly on relationships in the workplace, fairness, job security and instilling a sense of achievement.

Fiori, F., et al. (2016). "Employment insecurity and mental health during the economic recession: An analysis of the young adult labour force in Italy." *Soc Sci Med* **153**: 90-98.

BACKGROUND AND OBJECTIVE: A growing body of scientific literature highlights the negative consequences of employment insecurity on several life domains. This study focuses on the young adult labour force in Italy, investigating the relationship between employment insecurity and mental health and whether this has changed after years of economic downturn. It enhances understanding by addressing differences in mental health according to several employment characteristics; and by exploring the role of respondents' economic situation and educational level. DATA AND METHODS: Data from a large-scale, nationally representative health survey are used to estimate the relationship between employment insecurity and the Mental Health Inventory (MHI), by means of multiple linear regressions. RESULTS AND CONCLUSIONS: The study demonstrates that employment insecurity is associated with poorer mental health. Moreover, neither temporary workers nor unemployed individuals are a homogeneous group. Previous job experience is important in differentiating the mental health risks of unemployed individuals; and the effects on mental health vary according to occupational status and to the amount of time spent in a condition of insecurity. Further, the experience of financial difficulties partly explains the relationship between employment insecurity and mental health; and different mental health outcomes depend on respondents' educational level. Lastly, the risks of reporting poorer mental health were higher in 2013 than in 2005.

Huikari, S. et Korhonen, M. (2016). "The Impact of Unemployment on Well-Being: Evidence from the Regional Level Suicide Data in Finland." *Social Indicators Research* **128**(3): 1103-1119.  
<http://link.springer.com/journal/volumesAndIssues/11205>

We explore the effects of unemployment on the well-being of the regional population with disaggregated suicide data across gender and age in Finland during 1991-2011. On the basis of the economic theory of rational suicides we show that rising unemployment expectations have a negative effect on well-being by increasing regional suicide mortality. We find that a

possible future job loss has a significant effect on the prime working-age male (35-64 years old) suicides. We also provide strong evidence of the social norms on unemployment in Finland. We find, especially, that working-age males suffer more heavily from unemployment if they live in the area where the regional unemployment is low relative to the national average.

Kim, T. J. et von dem Knesebeck, O. (2016). "Perceived job insecurity, unemployment and depressive symptoms: a systematic review and meta-analysis of prospective observational studies." *Int Arch Occup Environ Health* **89**(4): 561-573.

**PURPOSE:** It was shown that both job insecurity and unemployment are strongly and consistently associated with depressive symptoms. It is, however, less clear whether perceived job insecurity and unemployment constitute a comparable risk for the onset of depressive symptoms. A meta-analysis was conducted to explore this issue. **METHODS:** In December 2014, relevant records were identified through the databases MEDLINE, Embase and PsychINFO. Articles were included if they had been published in the last 10 years and contained a quantitative analysis on the prospective link between job insecurity and unemployment with depressive symptoms. **RESULTS:** In 20 cohort studies within 15 articles, job insecurity and unemployment were significantly related to a higher risk of depressive symptoms, with the odds ratio (OR) being modestly higher for job insecurity (1.29, 95% CI 1.06-1.57) than for unemployment (1.19, 95% CI 1.11-1.28). Sensitivity analyses revealed that the effects were strongest in studies that examined younger respondents (<40 years) and used an unadjusted statistical model. By considering the length of the observational period, it was shown that unemployment ORs were higher in shorter time lags (under 1 year), while ORs for job insecurity were increased in longer exposure-outcome intervals (3-4 years). Specifically for unemployment, ORs were highest in studies that did not control for potential health selection effects and that ascertained enduring unemployment. A statistically significant publication bias was found for studies on unemployment, but not for job insecurity. **CONCLUSIONS:** The analyses revealed that both perceived job insecurity and unemployment constitute significant risks of increased depressive symptoms in prospective observational studies. By comparing both stressors, job insecurity can pose a comparable (and even modestly increased) risk of subsequent depressive symptoms.

LaMontagne, A. D., et al. (2016). "Psychosocial job quality, mental health, and subjective wellbeing: a cross-sectional analysis of the baseline wave of the Australian Longitudinal Study on Male Health." *BMC Public Health* **16**(Suppl 3): 1049.

**BACKGROUND:** Employment status and working conditions are strong determinants of male health, and are therefore an important focus in the Australian Longitudinal Study on Male Health (Ten to Men). In this paper, we describe key work variables included in Ten to Men, and present analyses relating psychosocial job quality to mental health and subjective wellbeing at baseline. **METHODS:** A national sample of males aged 10 to 55 years residing in private dwellings was drawn using a stratified multi-stage cluster random sample design. Data were collected between October 2013 and July 2014 for a cohort of 15,988 males, representing a response fraction of 35 %. This analysis was restricted to 18-55 year old working age participants (n = 13,456). Work-related measures included employment status, and, for those who were employed, a number of working conditions including an ordinal scale of psychosocial job quality (presence of low job control, high demand and complexity, high job insecurity, and low fairness of pay), and working time-related stressors such as long working hours and night shift work. Associations between psychosocial job quality and two outcome measures, mental ill-health and subjective wellbeing, were assessed using multiple

linear regression. RESULTS: The majority of participants aged 18-55 years were employed at baseline (85.6 %), with 8.4 % unemployed and looking for work, and 6.1 % not in the labour force. Among employed participants, there was a high prevalence of long working hours (49.9 % reported working more than 40 h/week) and night shift work (23.4 %). Psychosocial job quality (exposure to 0/1/2/3+ job stressors) prevalence was 36 %/ 37 %/ 20 %/ and 7 % of the working respondents. There was a dose-response relationship between psychosocial job quality and each of the two outcome measures of mental health and subjective wellbeing after adjusting for potential confounders, with higher magnitude associations between psychosocial job quality and subjective wellbeing. CONCLUSIONS: These results extend the study of psychosocial job quality to demonstrate associations with a global measure of subjective wellbeing. Ten to Men represents a valuable new resource for the longitudinal and life course study of work and health in the Australian male population.

Marchand, A., et al. (2016). "Psychosocial determinants of diurnal alpha-amylase among healthy Quebec workers." *Psychoneuroendocrinology* **66**: 65-74.

Salivary alpha-amylase (sAA) is a stress-sensitive biomarker that shows promise as an indirect proxy of sympathetic-adrenal-medullary axis activities that are otherwise difficult to discern non-invasively. This comprehensive study investigated diurnal sAA in association with numerous psychosocial characteristics related to mental health, work stress, and non-work stress. Participants included 395 workers (56.1% women, age: M=41.3, SD=10.81) from across 34 distinct workplaces. Diurnal sAA was sampled over two non-consecutive work days at awakening, 30 min after awakening, 14h00, 16h00, and bedtime. Well-validated psychometrics and survey items were used to measure mental health (psychological distress, depression, burnout, work characteristics) (task design, demands, social relations, gratifications), and non-work characteristics (marital/parental status, economic statuses, marital and parental stress, work-family conflicts). Preliminary results revealed that men showed occasionally higher sAA concentrations than women. Multilevel regressions were used to analyze sAA concentrations nested according to levels (i) for each time-point, (ii) between workers, and (iii) across workplaces while covarying for time of awakening, sex, age, cigarette smoking, alcohol consumption, regular physical activity, psychotropic drug use, and body mass index. Main results revealed that psychological demands, support from colleagues, interpersonal conflicts, job recognition and job insecurity appear to be associated with diurnal sAA, while non-work factors did not. Our findings showing a distinct diurnal profile for sAA replicate and expand those of Nater et al. (2007, *Psychoneuroendocrinology* 32, 392-401), providing further evidence that sAA is associated to subjective psychosocial factors.

Milner, A., et al. (2016). "The role of social support in protecting mental health when employed and unemployed: A longitudinal fixed-effects analysis using 12 annual waves of the HILDA cohort." *Soc Sci Med* **153**: 20-26.

<https://www.ncbi.nlm.nih.gov/pubmed/26867208>

Perceived social support is associated with overall better mental health. There is also evidence that unemployed workers with higher social support cope better psychologically than those without such support. However, there has been limited research about the effect of social support among people who have experienced both unemployment and employment. We assessed this topic using 12 years of annually collected cohort data. The sample included 3190 people who had experienced both unemployment and employment. We used longitudinal fixed-effects modelling to investigate within-person changes in mental health comparing the role of social support when a person was unemployed to when they

were employed. Compared to when a person reported low social support, a change to medium (6.35, 95% 5.66 to 7.04,  $p < 0.001$ ) or high social support (11.58, 95% 95% CI 10.81 to 12.36,  $p < 0.001$ ) was associated with a large increase in mental health (measured on an 100 point scale, with higher scores representing better mental health). When a person was unemployed but had high levels of social support, their mental health was 2.89 points (95% CI 1.67 to 4.11,  $p < 0.001$ ) higher than when they were employed but had lower social support. The buffering effect of social support was confirmed in stratified analysis. There was a strong direct effect of social support on mental health. The magnitude of these differences could be considered clinically meaningful. Our results also suggest that social support has a significant buffering effect on mental health when a person is unemployed.

Milner, A., et al. (2016). "Persistent and contemporaneous effects of job stressors on mental health: a study testing multiple analytic approaches across 13 waves of annually collected cohort data." *Occup Environ Med* **73**(11): 787-793.

**OBJECTIVES:** This study investigated the extent that psychosocial job stressors had lasting effects on a scaled measure of mental health. We applied econometric approaches to a longitudinal cohort to: (1) control for unmeasured individual effects; (2) assess the role of prior (lagged) exposures of job stressors on mental health and (3) the persistence of mental health. **METHODS:** We used a panel study with 13 annual waves and applied fixed-effects, first-difference and fixed-effects Arellano-Bond models. The Short Form 36 (SF-36) Mental Health Component Summary score was the outcome variable and the key exposures included: job control, job demands, job insecurity and fairness of pay. **RESULTS:** Results from the Arellano-Bond models suggest that greater fairness of pay (beta-coefficient 0.34, 95% CI 0.23 to 0.45), job control (beta-coefficient 0.15, 95% CI 0.10 to 0.20) and job security (beta-coefficient 0.37, 95% CI 0.32 to 0.42) were contemporaneously associated with better mental health. Similar results were found for the fixed-effects and first-difference models. The Arellano-Bond model also showed persistent effects of individual mental health, whereby individuals' previous reports of mental health were related to their reporting in subsequent waves. The estimated long-run impact of job demands on mental health increased after accounting for time-related dynamics, while there were more minimal impacts for the other job stressor variables. **CONCLUSIONS:** Our results showed that the majority of the effects of psychosocial job stressors on a scaled measure of mental health are contemporaneous except for job demands where accounting for the lagged dynamics was important.

Milner, A., et al. (2016). "Validity of a Job-Exposure Matrix for Psychosocial Job Stressors: Results from the Household Income and Labour Dynamics in Australia Survey." *PLoS One* **11**(4): e0152980.

**INTRODUCTION:** A Job Exposure Matrix (JEM) for psychosocial job stressors allows assessment of these exposures at a population level. JEMs are particularly useful in situations when information on psychosocial job stressors were not collected individually and can help eliminate the biases that may be present in individual self-report accounts. This research paper describes the development of a JEM in the Australian context. **METHODS:** The Household Income Labour Dynamics in Australia (HILDA) survey was used to construct a JEM for job control, job demands and complexity, job insecurity, and fairness of pay. Population median values of these variables for all employed people ( $n = 20,428$ ) were used to define individual exposures across the period 2001 to 2012. The JEM was calculated for the Australian and New Zealand Standard Classification of Occupations (ANZSCO) at the four-digit level, which represents 358 occupations. Both continuous and binary exposures to job stressors were calculated at the 4-digit level. We assessed concordance between the JEM-

assigned and individually-reported exposures using the Kappa statistic, sensitivity and specificity assessments. We conducted regression analysis using mental health as an outcome measure. RESULTS: Kappa statistics indicate good agreement between individually-reported and JEM-assigned dichotomous measures for job demands and control, and moderate agreement for job insecurity and fairness of pay. Job control, job demands and security had the highest sensitivity, while specificity was relatively high for the four exposures. Regression analysis shows that most individually reported and JEM measures were significantly associated with mental health, and individually-reported exposures produced much stronger effects on mental health than the JEM-assigned exposures. DISCUSSION: These JEM-based estimates of stressors exposure provide a conservative proxy for individual-level data, and can be applied to a range of health and organisational outcomes.

Moscone, F., et al. (2016). "The impact of precarious employment on mental health: The case of Italy." *Soc Sci Med* **158**: 86-95.

Although there has been a sizeable empirical literature measuring the effect of job precariousness on the mental health of workers the debate is still open, and understanding the true nature of such relationship has important policy implications. In this paper, we investigate the impact of precarious employment on mental health using a unique, very large data set that matches information on job contracts for over 2.7 million employees in Italy followed over the years 2007-2011, with their psychotropic medication prescription. We examine the causal effects of temporary contracts, their duration and the number of contract changes during the year on the probability of having one or more prescriptions for medication to treat mental health problems. To this end, we estimate a dynamic Probit model, and deal with the potential endogeneity of regressors by adopting an instrumental variables approach. As instruments, we use firm-level probabilities of being a temporary worker as well as other firm-level variables that do not depend on the mental illness status of the workers. Our results show that the probability of psychotropic medication prescription is higher for workers under temporary job contracts. More days of work under temporary contract as well as frequent changes in temporary contract significantly increase the probability of developing mental health problems that need to be medically treated. We also find that moving from permanent to temporary employment increases mental illness; symmetrically, although with a smaller effect in absolute value, moving from temporary to permanent employment tends to reduce it. Policy interventions aimed at increasing the flexibility of the labour market through an increase of temporary contracts should also take into account the social and economic cost of these reforms, in terms of psychological wellbeing of employees.

Park, S. K., et al. (2016). "Job stress and mental health among nonregular workers in Korea: What dimensions of job stress are associated with mental health?" *Arch Environ Occup Health* **71**(2): 111-118.

Although nonregular workers experience higher job stress, poorer mental health, and different job stress dimensions relative to regular workers, little is known about which job stress dimensions are associated with poor mental health among nonregular workers. This study investigated the association between job stress dimensions and mental health among Korean nonregular workers. Data were collected from 333 nonregular workers in Seoul and Gyeonggi Province, and logistic regression analysis was conducted. Results of the study indicated that high job insecurity and lack of rewards had stronger associations with poor mental health than other dimensions of job stress when controlling for sociodemographic

and psychosocial variables. It is important for the government and organizations to improve job security and reward systems to reduce job stress among nonregular workers and ultimately alleviate their mental health issues.

Probst, T. M. et Jiang, L. (2016). "Mitigating Physiological Responses to Layoff Threat: An Experimental Test of the Efficacy of Two Coping Interventions." Int J Environ Res Public Health **13**(3).

The purpose of the current study was to assess real-time physiological reactions to the threat of layoffs and to determine whether the use of an emotion-focused vs. problem-focused coping intervention would be more efficacious in attenuating these physiological reactions. A 2 (coping intervention) x 4 (within-subjects time points) mixed experimental design was used to test the hypotheses. Eighty-four undergraduates participated in this laboratory experiment during which their galvanic skin response (GSR) and heart rate (HR) were continuously monitored. Analyses indicate that individuals instructed to utilize an emotion-focused coping strategy experienced a significantly greater decline in their GSR compared to those utilizing the problem-focused coping method. Results suggest organizations conducting layoffs might focus first on dealing with the emotional aftermath of downsizing before focusing on problem-solving tasks, such as resume writing and other traditional outplacement activities.

Qureshi, M. A. et Khan, M. A. (2016). "Organizational and Psychological Outcomes of Job Insecurity: A Cross Sectional Investigation in the Private Sector Organizations of Pakistan." Pakistan Business Review **18**(1): 19-36.

<http://journals.iobmresearch.com/index.php/PBR/issue/archive>

Job Insecurity being the prevailing phenomenon has been discovered to be connected with psychological disorders such as anxiety, uncertainty and stress. It has also been evident that job insecurity perception triggers intention to leave and results in decreased job satisfaction, organizational commitment and job performance. This cross-sectional study examined the phenomenon in the private sector organizations of Pakistan where vital existence of the perceived job insecurity has been observed. 250 respondents were selected by stratified sampling technique to gather primary data. Findings have significantly supported the model developed and job insecurity has proved to be the contributor of psychological outcome in term of stress, anxiety and uncertainty. These psychological outcomes along with job insecurity negatively affect job performance, organizational commitment, intention to leave and job satisfaction which does not only impact the mental health of the victims of job insecurity but ultimately organization's productivity and future prospects of growth.

Rajani, N. B., et al. (2016). "Job insecurity, financial difficulties and mental health in Europe." Occup Med (Lond).

**BACKGROUND:** The recession has increased job insecurity in the European Union (EU) which may result in higher levels of psychological distress, burnout and anxiety. **AIMS:** To investigate the association of job insecurity and financial difficulties with mental health in 27 member states of the EU and to explore the moderating effect of having financial difficulties on the relationship between job insecurity and mental health. **METHODS:** The sample consisted of employed people from 27 European countries where the Eurobarometer survey (73.2 wave, 2010) was administered by the European Commission. Mental well-being and psychological distress were measured using the Vitality and Mental Health Index (MHI-5) subscales from the Short-Form 36-item health survey (SF-36v2). Linear regression including

an interaction term was used to test the underlying factors in this study. RESULTS: Among the 12594 respondents, experiencing job insecurity was associated with lower Vitality [beta = -3.82, 95% confidence interval (CI) -5.29 to -2.36] and MHI-5 (beta = -3.48, 95% CI -4.91 to -2.04). Similarly, having financial difficulties was significantly correlated with lower Vitality (beta = -8.65, 95% CI -12.07 to -5.24) and MHI-5 (beta = -11.51, 95% CI -15.08 to -7.94). However, having financial difficulties did not moderate the relationship between job insecurity and both mental health scales. CONCLUSIONS: This study highlights the negative effect of job insecurity and financial difficulties on mental health in the EU. Support to employees facing job security issues should be a priority regardless of the financial circumstances.

Rohde, N., et al. (2016). "The effect of economic insecurity on mental health: Recent evidence from Australian panel data." *Soc Sci Med* **151**: 250-258.

This paper estimates the impact of economic insecurity on the mental health of Australian adults. Taking microdata from the 2001-2011 HILDA panel survey, we develop a conceptually diverse set of insecurity measures and explore their relationships with the SF-36 mental health index. By using fixed effects models that control for unobservable heterogeneity we produce estimates that correct for endogeneity more thoroughly than previous works. Our results show that exposure to economic risks has small but consistently detrimental mental health effects. The main contribution of the paper however comes from the breadth of risks that are found to be harmful. Job insecurity, financial dissatisfaction, reductions and volatility in income, an inability to meet standard expenditures and a lack of access to emergency funds all adversely affect health. This suggests that the common element of economic insecurity (rather than idiosyncratic phenomena associated with any specific risk) is likely to be hazardous. Our preferred estimates indicate that a standard deviation shock to economic insecurity lowers an individual's mental health score by about 1.4 percentage points. If applied uniformly across the Australian population such a shock would increase the morbidity rate of mental disorders by about 1.7%.

Vander Elst, T., et al. (2016). "The effect of job insecurity on employee health complaints: A within-person analysis of the explanatory role of threats to the manifest and latent benefits of work." *J Occup Health Psychol* **21**(1): 65-76.

The current study contributes to the literature on job insecurity by highlighting threat to the benefits of work as an explanation of the effect of job insecurity on health complaints. Building on the latent deprivation model, we predicted that threats to both manifest (i.e., financial income) and latent benefits of work (i.e., collective purpose, social contacts, status, time structure, activity) mediate the relationships from job insecurity to subsequent mental and physical health complaints. In addition, in line with the conservation of resources theory, we proposed that financial resources buffer the indirect effect of job insecurity on health complaints through threat to the manifest benefit. Hypotheses were tested using a multilevel design, in which 3 measurements (time lag of 6 months between subsequent measurements) were clustered within 1,994 employees (in Flanders, Belgium). This allowed for the investigation of within-person processes, while controlling for variance at the between-person level. The results demonstrate that job insecurity was related to subsequent threats to both manifest and latent benefits, and that these threats in turn were related to subsequent health complaints (with an exception for threat to the manifest benefit that did not predict mental health complaints). Three significant indirect effects were found: threat to the latent benefits mediated the relationships between job insecurity and both mental and physical health complaints, and threat to the manifest benefit mediated the relationship

between job insecurity and physical health complaints. Unexpectedly, the latter indirect effect was exacerbated by financial resources.

## 2015

(2015). Mental health and work : Australie. Santé mentale et emploi: 171 , fig., tabl.  
<http://www.oecd.org/fr/els/emp/leprojetdelocdesurlasantementaleetlemploi.htm>

This report on Australia is the last in a series that looks at how selected OECD countries address those policy challenges. Through the lenses of mental health and work, it covers issues such as the transition from education to employment, the workplace, employment services for jobseekers, the drift into permanent disability, and the capacity of the health system.

(2015). Mental health and work : Austria. Santé mentale et emploi: 180 , fig., tabl.  
<http://www.oecd.org/fr/els/emp/leprojetdelocdesurlasantementaleetlemploi.htm>

Tackling mental ill-health of the working-age population is becoming a key issue for labour market and social policies in OECD countries. OECD governments increasingly recognise that policy has a major role to play in keeping people with mental ill-health in employment or bringing those outside of the labour market back to it, and in preventing mental illness. This report on Austria is the eighth in a series of reports looking at how the broader education, health, social and labour market policy challenges identified in *Sick on the Job? Myths and Realities about Mental Health and Work* (OECD, 2012) are being tackled in a number of OECD countries. It concludes that the Austrian system provides good opportunities in principle for improving labour market inclusion of people with mental ill-health but that structural fragmentation of responsibilities limits the means of the federal government to develop coherent health and work policies. Successful structural reform requires including a range of actors responsible for policy implementation to achieve coordination across institutions and better integrated service delivery.

Barr, B., et al. (2015). "Trends in mental health inequalities in England during a period of recession, austerity and welfare reform 2004 to 2013." Soc Sci Med **147**: 324-331.  
<https://www.ncbi.nlm.nih.gov/pubmed/26623942>

Several indicators of population mental health in the UK have deteriorated since the financial crisis, during a period when a number of welfare reforms and austerity measures have been implemented. We do not know which groups have been most affected by these trends or the extent to which recent economic trends or recent policies have contributed to them. We use data from the Quarterly Labour Force Survey to investigate trends in self reported mental health problems by socioeconomic group and employment status in England between 2004 and 2013. We then use panel regression models to investigate the association between local trends in mental health problems and local trends in unemployment and wages to investigate the extent to which these explain increases in mental health problems during this time. We found that the trend in the prevalence of people reporting mental health problems increased significantly more between 2009 and 2013 compared to the previous trends. This increase was greatest amongst people with low levels of education and inequalities widened. The gap in prevalence between low and high educated groups widened by 1.29 percentage points for women (95% CI: 0.50 to 2.08) and 1.36 percentage points for men (95% CI: 0.31 to 2.42) between 2009 and 2013. Trends in unemployment and wages only partly explained

these recent increases in mental health problems. The trend in reported mental health problems across England broadly mirrored the pattern of increases in suicides and antidepressant prescribing. Welfare policies and austerity measures implemented since 2010 may have contributed to recent increases in mental health problems and widening inequalities. This has led to rising numbers of people with low levels of education out of work with mental health problems. These trends are likely to increase social exclusion as well as demand for and reliance on social welfare systems

Bosmans, K., et al. (2015). "Explaining the relation between precarious employment and mental well-being. A qualitative study among temporary agency workers." *Work* **53**(2): 249-264.  
<https://www.ncbi.nlm.nih.gov/pubmed/26409379>

**BACKGROUND:** From an employee-perspective, temporary agency employment can be considered in two ways. According to the first perspective, agency jobs are associated with job characteristics that adversely affect mental well-being: job insecurity, low wages, a lack of benefits, little training, poorer prospects for the future, high working time flexibility, minimal trade union representation and problematic triadic employment relations. The other perspective underlines that flexibility, learning opportunities and freedom in agency employment enable workers to build the career of their choice, which may positively affect mental well-being. **OBJECTIVE:** This article aims at interpreting and explaining these conflicting perspectives. In particular, we discuss the role of coping resources (control, support, trust and equity) in the stress pathway between characteristics of temporary agency employment and mental well-being. **METHODS:** Semi-structured interviews with 12 Belgian temporary agency workers were conducted and analysed from a phenomenological perspective. **RESULTS:** The results reveal mainly how a lack of coping resources plays a key role in how (precarious) characteristics of temporary agency employment affect employees' mental well-being. **CONCLUSIONS:** This study illustrates the earlier assumed stress pathway between precarious employment and mental well-being, in which coping resources play an intermediary as well as a moderating role.

Breuer, C. (2015). "Unemployment and Suicide Mortality: Evidence from Regional Panel Data in Europe." *Health Economics* **24**(8): 936-950.  
<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-1050/issues>

This paper addresses the influence of economic activity on suicide mortality in Europe. To this end, it employs a new panel data set of 275 regions in 29 countries over the period 1999-2010. The results suggest that unemployment does have a significantly positive influence on suicides. In line with economic theory, this influence varies among gender and age groups. Men of working age are particularly sensitive, while old-age suicide mortality (older than 65 years old) hardly responds to unemployment. Moreover, real economic growth negatively affects the suicide rates of working-age men. The results withstand several robustness checks, such as sample variations, and after controlling for serial and spatial autocorrelation.

Buffel, V., et al. (2015). "The mental health consequences of the economic crisis in Europe among the employed, the unemployed, and the non-employed." *Soc Sci Res* **54**: 263-288.  
<http://www.sciencedirect.com/science/article/pii/S0049089X15001556>

Carlson, K. (2015). "Fear itself: The effects of distressing economic news on birth outcomes." *J Health Econ* **41**: 117-132.

I use new administrative data on mass layoffs and plant closings to study the effects of

distressing economic news. Exposure to stressful events during pregnancy can impair fetal development. I find that announcement of impending job losses leads to a transient decrease in the mean birth weight within the firm's county one to four months before the job losses. A loss of 500 jobs corresponds roughly to a decrease of 15-20g and 16 percent greater risk of low birth weight. Layoffs announced late in pregnancy are most strongly linked to decreased birth outcomes.

Chirumbolo, A. (2015). "The Impact of Job Insecurity on Counterproductive Work Behaviors: The Moderating Role of Honesty-Humility Personality Trait." *J Psychol* **149**(6): 554-569.

The detrimental effects of job insecurity on individual and organizational well-being are well documented in recent literature. Job insecurity as a stressor is generally associated with a higher presence of negative attitudes toward the organization. In this article, the moderating role of Honesty-Humility personality trait was investigated. It was assumed that Honesty-Humility would function as a psychological moderator of the job insecurity impact on counterproductive work behaviors. Participants were 203 workers who were administered a self-reported questionnaire. Results confirmed that job insecurity was positively related to counterproductive work behaviors whereas Honesty-Humility was negatively associated to them. More importantly, Honesty-Humility moderated this relationship, even after controlling for gender, age, type of contract, and the other HEXACO personality traits. For individuals with low Honesty-Humility, job insecurity was positively related to counterproductive work behaviors, whereas for individuals with high Honesty-Humility, job insecurity turned out to be unrelated to counterproductive work behaviors.

Ciceklioglu, M., et al. (2015). "The influence of a market-oriented primary care reform on family physicians' working conditions: A qualitative study in Turkey." *Eur J Gen Pract* **21**(2): 97-102.

**BACKGROUND:** Turkey has undergone a 'Health transformation programme' putting emphasis on the reorganization of primary care (PC) services towards a more market-oriented system. **OBJECTIVES:** To obtain a deep understanding of how family physicians (FPs) experienced the process of the reforms by focusing on working conditions. **METHODS:** This phenomenological and qualitative research used maximum variation sampling and 51 FPs were interviewed in 36 in-depth and four focus-group interviews. **RESULTS:** Thematic analysis of interviews provided seven themes: (1) change in the professional identity of PC physicians (physician as businessperson); (2) transformation of the physician-patient relationship in PC (into a provider-customer relationship); (3) job description and workload; (4) interpersonal relationships; (5) remuneration of FPs, (6) uncertainty about the future and (7) exhaustion. Most FPs felt that the Family medicine model (FMM) placed more emphasis on the business function of family practice and this conflicted with their professional characteristics as physicians. FPs complained that some of their patients behaved as extremely demanding consumers. Continuously increasing responsibilities and extremely high workload were commonly reported problems. Most participants described the negative incentives in the performance scheme as a degrading method of punishment. The main factor was job insecurity caused by contract-based employment. FPs described the point at which they are with terms such as exhaustion. **CONCLUSION:** By increasing workload and creating uncertainty about the future and about income, the PC reforms have led to working conditions, which has led to changes in the professional attitudes of physicians and their practice of medicine.

Diette, T. M., et al. (2015). "Skin Shade Stratification and the Psychological Cost of Unemployment: Is There a Gradient for Black Females?" *Review of Black Political Economy* **42**(1-2): 155-177.

<http://link.springer.com/journal/volumesAndIssues/12114>

The purpose of this paper is to formally evaluate whether the deleterious impact of unemployment on mental health increases as skin shade darkens for black women in the U.S. Using data drawn from the National Survey of American Life, we find strong evidence of a gradient on depression between skin shade and unemployment for black women. These findings are consistent with the premises of the emerging field of stratification economics. Moreover, the findings are robust to various definitions of skin shade. Unemployed black women with darker complexions are significantly more likely to suffer their first onset of depression than unemployed black females with lighter skin shade. While in some cases, lighter skinned black women appeared not to suffer adverse effects of unemployment compared to their employed counterparts, persons with dark complexions did not enjoy the same degree of protection from poor mental health.

Drydakis, N. (2015). "The effect of unemployment on self-reported health and mental health in Greece from 2008 to 2013: A longitudinal study before and during the financial crisis." *Soc Sci Med* **128**: 43-51.

<http://www.sciencedirect.com/science/article/pii/S0277953614008338>

The current study uses six annual waves of the Longitudinal Labor Market Study (LLMS) covering the 2008-2013 period to obtain longitudinal estimations suggesting statistically significant negative effects from unemployment on self-reported health and mental health in Greece. The specifications suggest that unemployment results in lower health and the deterioration of mental health during the 2008-2009 period compared with the 2010-2013 period, i.e., a period in which the country's unemployment doubled as a consequence of the financial crisis. Unemployment seems to be more detrimental to health/mental health in periods of high unemployment, suggesting that the unemployment crisis in Greece is more devastating as it concerns more people. Importantly, in all specifications, comparable qualitative patterns are found by controlling for unemployment due to firm closure, which allows us to minimize potential bias due to unemployment-health related reverse causality. Moreover, in all cases, women are more negatively affected by unemployment in relation to their health and mental health statuses than are men. Greece has been more deeply affected by the financial crisis than any other EU country, and this study contributes by offering estimates for before and during the financial crisis and considering causality issues. Because health and mental health indicators increase more rapidly in a context of higher surrounding unemployment, policy action must place greater emphasis on unemployment reduction and supporting women's employment.

Farre, L., et al. (2015). Feeling Useless: The Effect of Unemployment on Mental Health in the Great Recession. *IZA Discussion Paper ; 9235*. Bonn IZA: 26 , tabl., fig.+ annexes.

<http://ftp.iza.org/dp9235.pdf>

This article documents a strong connection between unemployment and mental disorders using data from the Spanish Health Survey. We exploit the collapse of the construction sector to identify the causal effect of job loss. Our results suggest that an increase of the unemployment rate by 10 percent due to collapse of the sector raised mental disorders in the affected population by 3 percent. We argue that the large size of this effect responds to the fact that the construction sector was at the centre of the macroeconomic shock. As a result, workers exposed to the negative employment shock faced very low chances of re-entering employment. We show that this led to long unemployment spells, hopelessness and feelings of uselessness.

Giorgi, G., et al. (2015). "Economic stress in the workplace: The impact of fear of the crisis on mental health." *Work* **51**(1): 135-142.

**BACKGROUND:** Since 2008, a deep financial crisis, which started in the United States, has widely spread around the world. Scientists expressed their worry about this crisis by pointing out that potential negative health effects can be created by collective fear and panic.

**OBJECTIVES:** The main purpose of this cross-sectional study on the fear of the crisis has been to examine its impact on mental health through the use of structural equation modeling. In the trial a new model of economic stress we were also interested in identifying if fear of the crisis has an indirect relationship with employees' health (e.g. related to a poor social support or to work-related stress). Furthermore, this study aimed to examine whether a full or a partial mediation model best fits the data.

**METHODS:** Data collection took place between 2010 and 2011. During this period several private organizations that comprised of 1236 employees participated in the study.

**RESULTS:** It was found that social support and job stress fully mediated the relationship between fear of the crisis and health, with all fit indices meeting their respective criteria, and with all path coefficients being significant.

**CONCLUSIONS:** Implications for discussion of the crisis among employees were presented. In conclusion, fear of the crisis appeared to be an important innovative construct for organizational wellbeing.

Haw, C., et al. (2015). "Economic recession and suicidal behaviour: Possible mechanisms and ameliorating factors." *Int J Soc Psychiatry* **61**(1): 73-81.

**BACKGROUND:** A growing body of research evidence from countries around the world indicates that economic recession is associated with increases in suicide, particularly in males of working age.

**AIMS:** To explore contributory and ameliorating factors associated with economic recession and suicide and thereby stimulate further research in this area and encourage policy makers to consider how best to reduce the impact of recession on mental health and suicidal behaviour.

**METHOD:** We conducted a selective review of the worldwide literature focusing on possible risk factors, mechanisms and preventative strategies for suicidal behaviour linked to economic recession.

**RESULTS:** A model of how recession might affect suicide rates is presented. A major and often prolonged effect of recession is on unemployment and job insecurity. Other important effects include those exerted by financial loss, bankruptcy and home repossession. It is proposed these factors may lead directly or indirectly to mental health problems such as depression, anxiety and binge drinking and then to suicidal behaviour. Countries with active labour market programmes and sustained welfare spending during recessions have less marked increases in suicide rates than those that cut spending on welfare and job-search initiatives for the unemployed. Other measures likely to help include targeted interventions for unemployed people, membership of social organisations and responsible media reporting. Good primary care and mental health services are needed to cope with increased demand in times of economic recession but some governments have in fact reduced healthcare spending as an austerity measure.

**CONCLUSION:** The research evidence linking recession, unemployment and suicide is substantial, but the evidence for the other mechanisms we have investigated is much more tentative. We describe the limitations of the existing body of research as well as make suggestions for future research into the effects of economic recession on suicidal behaviour.

Kim, T. J. et von dem Knesebeck, O. (2015). "Is an insecure job better for health than having no job at all? A systematic review of studies investigating the health-related risks of both job insecurity and unemployment." *BMC Public Health* **15**: 985.

**BACKGROUND:** Though previous research repeatedly found that being employed is better for health than having no job at all, evidence suggests that employment is not always beneficial for health. With especially job insecurity reflecting a contemporary health risk for the employed, a systematic review was performed to assess if insecure employment can be as detrimental for health as unemployment, and to determine whether these associations vary according to different health measures and among men and women. **METHODS:** The literature search was conducted in the databases Medline, Embase and PsychInfo. In order to allow a more accurate comparison between the two risk factors, studies were included if the data for job insecurity and unemployment was ascertained from the same sample, and contained a quantitative analysis for both exposures towards one (or more) health outcome(s). **RESULTS:** Out of 375 articles, in total, 13 studies were included in the systematic review. In 24 analyses contrasting the health-related associations between job insecurity and unemployment, 16 statistically significant associations were found for each exposure. According to the different health outcomes used, job insecurity and unemployment were strongly related to mental health, whereas job insecurity was more strongly associated with somatic symptoms. Unemployment showed stronger relations with worse general health and mortality. In 4 out of 16 gender-stratified analyses, significant associations between job insecurity/unemployment and health were found for men but not for women. Beyond that, associations were significant or insignificant in both gender groups. **CONCLUSIONS:** Though there were moderate differences across the health outcomes, overall, it was found that job insecurity can pose a comparable threat to health than unemployment. Policy interventions should therefore not only consider health risks posed by unemployment, but should also aim at the reduction of insecure employment.

Latif, E. (2015). "The Impact of Economic Downturn on Mental Health in Canada." International Journal of Social Economics **42**(1): 33-46.

<http://www.emeraldinsight.com/journals.htm?issn=0306-8293>

**Purpose--**The purpose of this paper is to use longitudinal Canadian data from the National Population Health Survey (1994-2006) to examine the impact of provincial unemployment rate on mental health as measured by the short form depression scale. **Design/methodology/approach--**To control for the unobserved individual specific factors, the study utilized individual-specific fixed-effects model. **Findings--**The study found that, for the overall model, provincial unemployment rate has a significant positive impact on depression. The study further examined the impact of unemployment rate on depression for a number of sub-groups based on gender, age, marital status, and education. The results suggest that the impacts of unemployment rate on depression are heterogeneous across different sub-groups. **Practical implications--**The results of this study have important policy implications. Previous studies suggest that mental stress may lead to risky health behaviours such as excessive drinking, substance use, and smoking. These risky health behaviours may have long term health consequences in terms of chronic conditions such as heart disease, cancer, etc. Thus policy makers may consider taking appropriate steps to provide mental health support during the period of recession. Such support may also be helpful for the unemployed individuals who are too depressed to search for job. **Originality/value--**Previous studies on this issue may suffer from potential bias since they omitted unobserved individual specific factors from the estimating equations. This paper has taken the opportunity of utilizing longitudinal Canadian Population Health Survey and adopts an individual specific fixed effects method to estimate the effects of macroeconomic conditions on mental health. All of the studies reviewed here used data from the USA. So far no study has examined the impact of unemployment rate on mental health using Canadian data. It is interesting to conduct a

study using Canadian data since there are important differences between Canada and the USA with respect to labour market policies and health care systems.

Lourenco, S., et al. (2015). "Psychosocial Work Environment and Musculoskeletal Symptoms among 21-Year-Old Workers: A Population-Based Investigation (2011-2013)." *PLoS One* **10**(6): e0130010.

**BACKGROUND:** The current labour market is becoming more flexible and informal, with job insecurity selectively affecting young workers. However, the role of these increasing adverse psychosocial working conditions on health outcomes remains little known among newly employed workers. **OBJECTIVE:** To estimate the associations between psychosocial work environment and musculoskeletal outcomes (widespread pain syndrome features and regional pain) in a population-based sample of young workers. **METHODS:** Cross-sectional data from workers aged 21 years were collected during the third wave of the EPITeen cohort study (2011-2013; n=650). The Job Content Questionnaire was used to characterize the psychosocial work environment according to the demand-control-support model. Data on pain and non-pain dimensions of the widespread pain syndrome (Fibromyalgia Survey Questionnaire) as well as on regional musculoskeletal pain (Nordic Musculoskeletal Questionnaire) were also collected. Crude and adjusted odds ratios (OR) with 95% confidence intervals (95% CI) were computed using logistic regression and all estimates were adjusted for sex, education and occupational biomechanical demands. **RESULTS:** Job insecurity was significantly associated to the non-pain dimension of the widespread pain syndrome (adjusted OR [95% CI]=1.51 [1.08, 2.12]). Young workers with strain jobs were significantly more likely to report high levels of non-pain symptoms when compared with those with no-strain jobs and this effect was even stronger when social support was added to the main exposure: workers with strain jobs and low social support had twice the odds of reporting high levels of non-pain features than those with high strain but high social support jobs (adjusted OR=1.86, 95% CI: 1.04, 3.31). These significant associations were not observed when widespread pain or multisite regional pain were the outcomes. **CONCLUSION:** In the beginning of professional life, high strain jobs were associated to non-pain complaints, especially when the work environment provided also low social support.

Magnusson Hanson, L. L., et al. (2015). "Threats of dismissal and symptoms of major depression: a study using repeat measures in the Swedish working population." *J Epidemiol Community Health* **69**(10): 963-969.

**BACKGROUND:** Job insecurity is considered a profound work stressor. While previous research has indicated that job insecurity represents a substantial mental health burden, few studies have examined its relationship with symptoms of major depression. The aim of this study was to assess whether episodic and repeated self-reported threats of dismissal increase the risk of subsequent symptoms of major depression and whether symptoms of major depression are related to subsequent experience of threats of dismissal. **METHODS:** The study is based on the Swedish Longitudinal Occupational Survey of Health (SLOSH) study, a cohort study with multiple repeated measurements. The sample consisted of 6275 participants who were in regular paid employment and who provided data in 2008, 2010 and 2012. Severity of depression was assessed with a brief Symptom Checklist scale and categorised according to symptoms of major depression or not. **RESULTS:** Results based on generalised estimating equations logit models showed that prior threats of dismissal predicted symptoms of major depression OR 1.37; 95% CI 1.04 to 1.81) after adjustment for prior depression and major confounders. Especially related threats increased the risk of major depression symptoms (OR 1.74 CI 1.09 to 2.78). Major depression symptoms also

increased the odds of subsequent threats of dismissal (OR 1.52, CI 1.17 to 1.98).

CONCLUSIONS: These findings support a prospective association between threats of dismissal and symptoms of major depression, in particular repeated exposure to threats of dismissal. The results also indicate that threats of dismissal are more likely to be reported by workers with symptoms of major depression.

Marchand, A., et al. (2015). "The multilevel determinants of workers' mental health: results from the SALVEO study." *Soc Psychiatry Psychiatr Epidemiol* **50**(3): 445-459.

PURPOSE: This study examined the contribution of work, non-work and individual factors on workers' symptoms of psychological distress, depression and emotional exhaustion based on the multilevel determinants of workers' mental health model. METHODS: Data from the SALVEO Study were collected in 2009-2012 from a sample of 1,954 employees nested in 63 workplaces in the province of Quebec (Canada). Multilevel regression models were used to analyse the data. RESULTS: Altogether, variables explain 32.2 % of psychological distress, 48.4 % of depression and 48.8 % of emotional exhaustion. Mental health outcomes varied slightly between workplaces and skill utilisation, physical and psychological demands, abusive supervision, interpersonal conflicts and job insecurity are related to the outcomes. Living in couple, having young children at home, family-to-work conflict, work-to-family conflict, strained marital and parental relations, and social support outside the workplace associated with the outcomes. Most of the individual characteristics also correlated with the three outcomes. Importantly, non-work and individual factors modulated the number and type of work factors related to the three outcomes. CONCLUSION: The results of this study suggest expanding perspectives on occupational mental health that fully recognise the complexity of workers' mental health determinants.

Modrek, S., et al. (2015). "Psychological well-being during the great recession: changes in mental health care utilization in an occupational cohort." *Am J Public Health* **105**(2): 304-310.

OBJECTIVES: We examined the mental health effects of the Great Recession of 2008 to 2009 on workers who remained continuously employed and insured. METHODS: We examined utilization trends for mental health services and medications during 2007 to 2012 among a panel of workers in the 25 largest plants, located in 15 states, of a US manufacturing firm. We used piecewise regression to compare trends from 2007 to 2010 in service and medication use before and after 2009, the year of mass layoffs at the firm and the peak of the recession. Our models accounted for changes in county-level unemployment rates and individual-level fixed effects. RESULTS: Mental health inpatient and outpatient visits and the yearly supply of mental health-related medications increased among all workers after 2009. The magnitude of the increase in medication usage was higher for workers at plants with more layoffs. CONCLUSIONS: The negative effects of the recession on mental health extend to employed individuals, a group considered at lower risk of psychological distress.

Morgan, J. I. et Harris, P. R. (2015). "Evidence that brief self-affirming implementation intentions can reduce work-related anxiety in downsize survivors." *Anxiety Stress Coping* **28**(5): 563-575.

BACKGROUND AND OBJECTIVES: Workers were recruited from a UK further education college during a period of organizational downsizing. This study assessed the effects of a brief health psychology intervention on work-related stress in downsize survivors. DESIGN AND METHODS: Sixty-six employees were randomly allocated to one of two conditions: one in which they were asked to create a work-related self-affirming implementation intention (WS-All) or a control. Feelings of anxiety and depression were measured before and after the

intervention or control task and three weeks later. Job satisfaction, self-efficacy, and self-esteem were also measured. RESULTS: There were statistically significant differences between the WS-All condition and the control. Workers who created WS-Alls reported an immediate reduction in anxiety. This reduction was also observed in their appraisal of job-related anxiety three weeks later. There were no significant effects of WS-Alls on depression, job satisfaction, or self-esteem. There was, however, a significant effect on self-efficacy with workers in the WS-All condition reporting greater self-efficacy. CONCLUSIONS: The present findings suggest that the integration of brief health psychology interventions, such as the WS-All, into existing organizational practice may be of benefit to the well-being of employees.

Nella, D., et al. (2015). "Consequences of Job Insecurity on the Psychological and Physical Health of Greek Civil Servants." Biomed Res Int **2015**: 673623.

The aim of this study was to estimate the short term consequences of job insecurity associated with a newly introduced mobility framework in Greece. In specific, the study examined the impact of job insecurity on anxiety, depression, and psychosomatic and musculoskeletal symptoms, two months after the announcement of the mobility framework. In addition the study also examined the "spill over" effects of job insecurity on employees not directly affected by the mobility framework. Personal interviews using a structured questionnaire were conducted for 36 university administrative employees awaiting repositioning, 36 coworkers not at risk, and 28 administrative employees of a local hospital not at risk. Compared to both control groups the employees in the anticipation phase of labor mobility had significantly worse scores for perceived stress, anxiety, depression, positive affect, negative affect, social support, marital discord, common somatic symptoms, and frequency of musculoskeletal pain. This study highlights the immediate detrimental effects of job insecurity on the physical, psychological, and social functioning of employees. There is a need for the development of front line interventions to prevent these effects from developing into chronic conditions with considerable cost for the individual and society in general.

Niedhammer, I., et al. (2015). "Occupational factors and subsequent major depressive and generalized anxiety disorders in the prospective French national SIP study." BMC Public Health **15**: 200.

BACKGROUND: The literature has been extensive on the associations between psychosocial work factors and mental health. Nevertheless, the studies using prospective design, various concepts and more than one measurement point in time for these factors and diagnostic interview to assess mental disorders remain seldom in the literature. This study is an attempt to fill the gap in this topic. METHODS: The study was based on a national representative sample of 4717 workers of the French working population (SIP survey), interviewed in 2006 and reinterviewed again in 2010 and free of mental disorders at baseline. Psychosocial work factors, measured in both 2006 and 2010, included: psychological demands, decision latitude, social support, reward, emotional demands, role conflict, ethical conflict, tensions with the public, job insecurity and work-life imbalance. Other occupational factors related to working time/hours and physical work environment were also studied. Major depressive (MDD) and generalized anxiety disorders (GAD) were measured using a standardised diagnostic interview (MINI). Covariates were age, occupation, marital status, having a child under 3 y, social support outside work and stressful life events. Multivariate analyses were performed using weighted logistic regression models. RESULTS: Using models taking all occupational factors into account simultaneously, low reward and job insecurity predicted

MDD. Psychological demands, low reward, emotional demands and job insecurity were predictive of GAD. The more frequent the exposure to job insecurity, the higher the risk of MDD and GAD, and the more frequent the exposure to psychological demands and low reward, the higher the risk of GAD. No effect was observed for repeated exposure to occupational factors. CONCLUSIONS: Classical and emergent psychosocial work factors were predictive factors of depression and anxiety with dose-response associations in terms of frequency of exposure. More attention may be needed on emergent psychosocial work factors and frequent exposure to these factors.

Olsen, I. B., et al. (2015). "Exploring Work-Related Causal Attributions of Common Mental Disorders." *J Occup Rehabil* **25**(3): 493-505.

PURPOSE: Common mental disorders (CMDs) are major causes of sickness absence and disability. Prevention requires knowledge of how individuals perceive causal mechanisms, and in this study we sought to examine work-related factors as causal attribution of CMDs. METHODS: A trial sample of n = 1,193, recruited because they struggled with work participation due to CMDs, answered an open-ended questionnaire item about what they believed were the most important causes of their CMDs. The population included participants at risk of sickness absence, and participants with reduced work participation due to sickness absence, disability or unemployment. We used thematic content analysis and categorized responses from 487 participants who reported work-related factors as causal attributions of their CMDs. Gender differences in work-related causal attributions were also examined. RESULTS: The participants attributed their CMDs to the following work-related factors; work stress, leadership, reduced work participation, job dissatisfaction, work conflict, social work environment, job insecurity and change, workplace bullying, and physical strain. Women tended to attribute CMDs to social factors at work. CONCLUSION: Findings from this study suggest several work-related risk factors for CMDs. Both factors at the workplace, and reduced work participation, were perceived by study participants as contributing causes of CMDs. Thus, there is a need to promote work participation whilst at the same time targeting aversive workplace factors. Further, our findings indicate that work-related factors may affect women and men differently. This illustrates that the association between work participation and CMDs is complex, and needs to be explored further.

Parent-Lamarche, A. et Marchand, A. (2015). "The moderating role of personality traits in the relationship between work and salivary cortisol: a cross-sectional study of 401 employees in 34 Canadian companies." *BMC Psychol* **3**: 45.

BACKGROUND: The objective of this study was to evaluate the contribution of personality traits in explaining the relationship between workplace stressors and variations in salivary cortisol concentrations. METHOD: Multilevel regression analyses were performed on a sample of 401 employees from 34 Quebec firms. Saliva samples were collected five times a day (on awakening, 30 min after awakening, and at 2 p.m., 4 p.m., and bedtime). Sample collection was repeated on three days (1 rest day, 2 working days). Work-related variables comprised skill utilization, decision authority, psychological demands, physical demands, job insecurity, irregular schedule, number of working hours, and social support from coworkers and supervisors. Personality traits comprised self-esteem, locus of control, and the Big Five. RESULTS: Cortisol levels at awakening and 30 min later were significantly higher for work days than for days off. Psychological demands and job insecurity were associated with lower cortisol levels at bedtime. Also, self-esteem moderated the relationship between physical demands and cortisol levels at awakening and 4 p.m. Agreeableness was associated with lower cortisol levels at awakening and at 2 p.m. and further moderated the relationship

between number of hours worked and cortisol at 2 p.m. Neuroticism moderated the relationship between coworker support and cortisol at bedtime. CONCLUSION: Specific working conditions and certain personality traits are associated with variations in salivary cortisol concentrations. In addition, certain personality traits moderate the relationship between stressors and salivary cortisol concentrations. In conclusion, salivary cortisol concentrations at work seem to be modulated in part by personality traits.

Rueda, S., et al. (2015). "Is any job better than no job? Labor market experiences and depressive symptoms in people living with HIV." *AIDS Care* **27**(7): 907-915.

The purpose of this study is to determine the relationship between the psychosocial work environment and labor market experiences (including unemployment) on mental health among adults living with HIV. We used data provided by 538 participants at clinical and community sites across Ontario, Canada. Generalized estimating equation models showed that employment was associated with lower depressive symptoms. For employed participants, adverse psychosocial work conditions, specifically job insecurity, psychological demands, and decision authority were associated with depressive symptoms. For the entire sample, the number of adverse psychosocial work conditions was associated with higher depressive symptoms while participants working in poor quality jobs reported similar levels of depressive symptoms than those who were unemployed or not in the labor force. This study showed that poor quality employment (as assessed by having a high number of adverse psychosocial work exposures) was associated with a similar level of depressive symptoms as unemployment, suggesting that "bad jobs" may not offer the same mental health benefits as "good jobs." Policies to improve employment outcomes should take the quality of employment into account to maximize mental health benefits as better employment may lead to better mental health.

Schutte, S., et al. (2015). "Psychosocial work exposures among European employees: explanations for occupational inequalities in mental health." *J Public Health (Oxf)* **37**(3): 373-388.

BACKGROUND: Social inequalities in mental health have been demonstrated but understanding the mechanisms remains unclear. This study aims at exploring the role of psychosocial work factors in explaining occupational inequalities in mental health among European employees. METHODS: The study sample covered 33,443 employees coming from the European Working Conditions Survey 2010. Mental health was measured by the WHO-5 well-being index and socioeconomic position by occupation. Twenty-five psychosocial work factors were constructed including job demands, job influence and development, role stressors, social support, quality of leadership, discrimination, violence at work, working hours, job promotion, job insecurity and work-life imbalance. Multilevel linear regressions and bootstrap analyses were performed. RESULTS: Occupational differences were observed for poor mental health and almost all psychosocial work factors. Factors related to job demands, influence and development at work, social relationships and leadership, working hours and other factors contributed to explain the occupational inequalities in mental health. In particular, factors related to influence and development contributed substantially. Among men, workplace violence was found to contribute little whereas among women these factors did not play a role. CONCLUSIONS: Future prevention interventions should have a broad and comprehensive focus in order to reduce social inequalities in mental health.

ten Have, M., et al. (2015). "The association between type and number of adverse working conditions and mental health during a time of economic crisis (2010-2012)." *Soc Psychiatry Psychiatr Epidemiol* **50**(6): 899-907.

**PURPOSE:** Many studies have been published on the association between adverse psychosocial working conditions and mental health, but only a few related types of adverse job conditions and a count of these adversities to workers' mental health, using standardized diagnostic interviews. This study addresses this issue. **METHODS:** Data were used from the second wave of the Netherlands Mental Health Survey and Incidence Study-2, a nationally representative face-to-face survey of the general population, including 3,672 workers, 166 unemployed and 239 disabled persons. Among workers, psychosocial working conditions (decision latitude, psychological job demands, job security and co-worker support) were assessed with the Job Content Questionnaire. Mental health symptoms were assessed with the Mental Health Inventory (MHI)-5 and DSM-IV diagnoses/syndromes with the Composite International Diagnostic Interview 3.0. **RESULTS:** Adverse psychosocial job conditions were related to workers' mental health. The strongest association was found for low job security which increased the chance of mental health symptoms and mental disorders by twofold. Workers in the poorest quality jobs, i.e. experiencing at least three adverse working conditions, had a 3 to almost 5 times higher chance of mental disorders than those in the most optimal jobs. Having a poor quality job was not associated with better mental health compared to being unemployed or disabled. In general, similar relations were found for mood, anxiety and substance use disorders. **CONCLUSIONS:** In planning future strategies to prevent mental disorders at the workplace, the focus should be on workers who experience job insecurity and on those who report several adversities.

Tora, I., et al. (2015). "Effect of economic recession on psychosocial working conditions by workers' nationality." *Int J Occup Environ Health* **21**(4): 328-332.

**BACKGROUND:** Several publications have documented the effects of economic recessions on health. However, little is known about how economic recessions influence working conditions, especially among vulnerable workers. **OBJECTIVE:** To explore the effects of 2008 economic crisis on the prevalence of adverse psychosocial working conditions among Spanish and foreign national workers. **METHODS:** Data come from the 2007 and 2011 Spanish Working Conditions Surveys. Survey year, sociodemographic, and occupational information were independent variables and psychosocial factors exposures were dependent variables. Analyses were stratified by nationality (Spanish versus foreign). Prevalence and adjusted prevalence ratios (aPRs) of psychological job demands, job control, job social support, physical demands and perceived job insecurity were estimated using Poisson regression. **RESULTS:** The Spanish population had higher risk of psychological and physical job demand (aPR = 1.07, 95% CI = [1.04-1.10] and aPR = 1.05, 95% CI = [1.01-1.09], respectively) in 2011 compared to 2007. Among both Spanish and foreign national workers, greater aPR were found for job loss in 2011 compared to 2007 (aPR = 2.47, 95% CI = [2.34-2.60]; aPR = 2.44, 95% CI = [2.15-2.77], respectively). **CONCLUSION:** The 2008 economic crisis was associated with a significant increase in physical demands in Spanish workers and increased job insecurity for both Spanish and foreign workers.

## 2014

(2014). Mental health and work : Netherlands. *Santé mentale et emploi*: 150 , fig., tabl.  
<http://www.oecd.org/fr/els/emp/leprojetdelocdesurlasantementaletemploi.htm>

Throughout the OECD, mental ill-health is increasingly recognised as a problem for social and labour market policy; a problem that is creating significant costs for people, employers and

the economy at large by lowering employment, raising unemployment and generating productivity losses. Over the past two decades, the Dutch Government has strengthened obligations and incentives for individuals and employers to co-operate in return-to-work management. These investments have successfully improved labour market outcomes for people with health problems. Sickness absences and disability benefit claims have fallen overall but absences remain high for people with mental ill-health and the share of mental disorders in disability claims is increasing. Important challenges persist in the area of mental health and work, including the lack of attention for people with mild-to-moderate mental disorders (such as psychological distress, depression or anxiety) in all sectors; little attention on the prevention of mental ill-health at work; limited public support to help sick people return to work; and the lack of co-ordinated and integrated (mental) health and employment support. To improve sustainable labour market inclusion of people with mental illness the OECD recommends that the Netherlands: Provide direction to schools to: i) support pupils with mild-to-moderate mental health problems; ii) implement preventive activities; and iii) improve the transition from school to work for adolescents with mental health problems; implement and monitor employer obligations to prevent mental ill-health at work and ensure sufficient support for employees by providing training to return-to-work case managers and occupational physicians in mental health issues.

(2014). Mental health and work : United Kingdom. *Santé mentale et emploi*: 142 , tabl., graph., fig. <http://www.oecd.org/fr/els/emp/leprojetdelocdesurlasantementaleetlemploi.htm>

The costs of mental ill-health for individuals, employers and society at large are enormous. Mental illness is responsible for a very significant loss of potential labour supply, high rates of unemployment, and a high incidence of sickness absence and reduced productivity at work. In particular, mental illness causes too many young people to leave the labour market, or never really enter it, through early moves onto disability benefit. Despite these very high costs to the individuals and the economy, there is only little awareness about the connection between mental health and work, and the drivers behind the labour market outcomes and the level of inactivity of people with mental ill-health. This series contributes to filling that knowledge gap. It offers both a general overview of the main challenges and barriers to better integrating people with mental illness in the world of work, as well as a close look at the situation in specific OECD countries.

(2014). Santé mentale et emploi : Suisse. *Santé mentale et emploi*: 188 , tabl., graph., fig. <http://www.oecd.org/fr/els/emp/leprojetdelocdesurlasantementaleetlemploi.htm>

Dans les pays de l'OCDE, la gestion des problèmes de santé mentale dans la population d'âge actif devient un enjeu essentiel pour les politiques sociales et du marché du travail. Les gouvernements de ces pays sont de plus en plus nombreux à reconnaître que les pouvoirs publics ont un rôle important à jouer pour maintenir au travail les personnes souffrant de troubles mentaux ou pour faciliter la réintégration de celles qui sont sorties du marché de l'emploi, ainsi que pour prévenir l'apparition de ce type de troubles. Ce rapport relatif à la Suisse est le cinquième d'une série de travaux analysant l'approche adoptée par différents pays de l'OCDE face aux défis plus larges, décrits dans la publication *Mal-être au travail ? Mythes et réalités sur la santé mentale et l'emploi* (OCDE, 2012), auxquels sont confrontés les pouvoirs publics en matière d'éducation, de santé, de politique sociale et d'emploi.

Cheng, Y., et al. (2014). "Changes in psychosocial work conditions in Taiwanese employees by gender and age from 2001 to 2010." *J Occup Health* **55**(5): 323-332.

**OBJECTIVE:** The aim of this study was to examine changes in working hours, shift work, psychological and physical job demands, job control and job insecurity in Taiwanese employees by gender and age during the period of 2001 to 2010. **METHODS:** The study subjects were 36,750 men and 27,549 women, aged 25-64, from 4 rounds of cross-sectional surveys of representative employees. Psychosocial work conditions were assessed by a validated questionnaire. **RESULTS:** Regression analyses with adjustment of education and employment grade showed that from 2001 to 2010, the proportions of workers with long working hours (>48 hours/week) (OR=1.4 in men and 1.5 in women) and workers with short working hours (<40 hours/week) (OR=1.3 in both genders) both increased over time, indicating an increasing polarization in the distribution of working hours. Furthermore, the proportions of nonstandard work shifts (OR=1.7 in men and 2.1 in women) and work with high physical demands (OR=1.5 for both gender) increased. There were signs of decreasing levels of job control from 2001 to 2007, which seemed to be more apparent in younger workers than in older workers. However, a slight recovery in decision latitude and opportunity for learning was noticed in later years. The trend in job insecurity was not linear, with the highest prevalence found in 2004. **CONCLUSIONS:** Our findings suggested that certain aspects of psychosocial work environment had deteriorated in Taiwan. There is a need to raise public awareness about the changing patterns of psychosocial health risks at work as well as their causes and their potential impacts on worker well-being.

Dawson, C., et al. (2014). Is temporary employment a cause or consequence of poor mental health? Economics Working Paper. 1409. Bristol University of West England: 49 , fig., annexes.

<http://www2.uwe.ac.uk/faculties/BBS/BUS/Research/Economics%20Papers%202014/1409.pdf>

Mental health status often has a strong association with labour market outcomes. If people in temporary employment have poorer mental health than those in permanent employment then it is consistent with two mutually inclusive possibilities: temporary employment generates adverse mental health effects and/or individuals with poorer mental health select into temporary from permanent employment. We reveal that permanent workers with poor mental health appear to select into temporary employment thus signalling that prior cross sectional studies may overestimate the influence of employment type on mental health. We also reveal that this selection effect is significantly mitigated by job satisfaction.

Drydakis, N. (2014). The Effect of Unemployment on Self-Reported Health and Mental Health in Greece from 2008 to 2013: A Longitudinal Study Before and During the Financial Crisis. IZA Discussion Paper ; 8742. Bonn IZA: 22 , tabl.

<http://ftp.iza.org/dp8742.pdf>

The current study uses six annual waves of the Longitudinal Labor Market Study (LLMS) covering the 2008-2013 period to obtain longitudinal estimations suggesting statistically significant negative effects from unemployment on self-reported health and mental health in Greece. The specifications suggest that unemployment results in lower health and the deterioration of mental health during the 2008-2009 period compared with the 2010-2013 period, i.e., a period in which the country's unemployment doubled as a consequence of the financial crisis. Unemployment seems to be more detrimental to health/mental health in periods of high unemployment, suggesting that the unemployment crisis in Greece is more devastating as it concerns more people. Importantly, in all specifications, comparable qualitative patterns are found by controlling for unemployment due to firm closure, which allows us to minimize potential bias due to unemployment-health related reverse causality. Moreover, in all cases, women are more negatively affected by unemployment in relation to their health and mental health statuses than are men. Greece has been more deeply affected

by the financial crisis than any other EU country, and this study contributes by offering estimates for before and during the financial crisis and considering causality issues. Because health and mental health indicators increase more rapidly in a context of higher surrounding unemployment, policy action must place greater emphasis on unemployment reduction and supporting women's employment.

Grunow, M. (2014). Reference-Dependent Effects of Unemployment on Mental Well-Being. Working Paper; 323. Augsburg University of Augsburg: 49 ,tabl., ann.  
<http://www.wiwi.uni-augsburg.de/vwl/institut/paper/323.pdf>

Several contributions to the literature have shown that the perception of the individual employment status depends on the surrounding unemployment rate. We argue that expectations are a possible link between unemployment rates and the individual employment status regarding changes in mental well-being. Theoretical foundation comes from models for reference-dependent preferences with endogenous reference points. We provide a simple theoretical model to motivate and structure the empirical analysis. Using data from the German Socio-Economic Panel, we estimate a pairwise interacted model for employment status and expectations over two time periods. Life satisfaction is used as a proxy for mental well-being. To identify a causal effect of unemployment, expectations and their interactions on mental well-being, the analysis relies on fixed effects and exogenous entries into unemployment due to plant closures. We confirm the standard result that unemployment has a negative effect on mental well-being. Furthermore, the results deliver empirical evidence for reference-dependent effects of unemployment on mental well-being. We find that becoming unemployed unexpectedly is more severe as if the unemployment was expected. Therefore, this paper contributes to the understanding of how mental well-being is affected by unemployment and delivers empirical support for the theoretical models of reference-dependent preference with endogenous reference points determined by expectations

Kaur, H., et al. (2014). "Workplace psychosocial factors associated with hypertension in the U.S. workforce: a cross-sectional study based on the 2010 national health interview survey." Am J Ind Med **57**(9): 1011-1021.

OBJECTIVE: To explore associations between self-reported hypertension and workplace psychosocial factors that are common among U.S. workers and to identify industries and occupations (I&Os) that are associated with a high prevalence of hypertension, even after adjustment for common known risk factors. METHODS: Data from the 2010 National Health Interview Survey were used to examine relationships between the prevalence of self-reported hypertension and job insecurity, hostile work environment, work-family imbalance, work hours and I&O. RESULTS: Job insecurity (adjusted prevalence ratio (aPR): 1.11; 95% confidence interval (CI): 1.04-1.19) and hostile work environment (aPR: 1.15; 95% CI: 1.03-1.29) were significantly associated with hypertension. Hypertension prevalence was significantly elevated among those employed in Healthcare Support occupations and Public Administration industries. CONCLUSION: Addressing hostile work environments and the stress associated with job insecurity may improve workers' health. Other occupational factors that contribute to the variation in prevalence of hypertension by I&O should be sought.

Kinnunen, U., et al. (2014). "Development of perceived job insecurity across two years: associations with antecedents and employee outcomes." J Occup Health Psychol **19**(2): 243-258.

This 2-year longitudinal study among 848 university employees investigated the individual development of perceived job insecurity (JI) in the context of changes occurring in the Finnish universities during the follow-up time. Adopting a person-oriented approach through latent profile analysis, 8 classes of employees with similar mean levels and mean-level changes in JI were identified. Two of these classes (75% of the participants) indicated stable (low, moderately high) JI, and the remaining 6 classes (25% of the participants) showed change (decreasing, increasing, curvilinear) in the level of JI across time. We then examined possible differences between these classes with respect to individual antecedents and outcomes of JI. Of the antecedents, the type of employment contract distinguished best between the JI classes. Of the outcomes, moderately high stable JI was associated with low stable vigor and high stable levels of exhaustion and turnover intentions across time. In addition, it seemed that a decrease in JI was associated with a decrease in exhaustion and turnover intentions and vice versa. Altogether the findings suggest that developmental JI classes exhibit a substantial amount of heterogeneity, which is simultaneously reflected in occupational well-being.

Loerbroks, A., et al. (2014). "Job insecurity is associated with adult asthma in Germany during Europe's recent economic crisis: a prospective cohort study." *J Epidemiol Community Health* **68**(12): 1196-1199.

**BACKGROUND:** Job insecurity has been identified as a risk factor for adverse health outcomes. Perceptions of job insecurity steeply increased during Europe's recent economic downturn, which commenced in 2008. The current study assessed whether job insecurity was associated with incident asthma in Germany during this period. **METHODS:** We used prospective data from the German Socio-Economic Panel for the period 2009-2011 (follow-up rate=77.5%, n=7031). Job insecurity was defined by respondents' ratings of the probability of losing their job within the next 2 years and asthma as self-reports of physician-diagnosed asthma. Associations between job insecurity in 2009 (continuous z-scores or categorised variables) and incident asthma by 2011 were assessed using multivariable Poisson regression. **RESULTS:** The risk of asthma increased significantly by 24% with every one SD increase of the job insecurity variable. In dichotomised analyses, a probability of job loss of  $\geq 50\%$  (vs  $< 50\%$ ) was associated with a 61% excess risk of asthma. A trichotomous categorisation of job insecurity confirmed this finding. **CONCLUSIONS:** This study has shown, for the first time, that perceived job insecurity may increase the risk of new onset asthma. Further prospective studies may examine the generalisability of our findings and determine the underlying mechanisms.

Moscone, F., et al. (2014). The Impact of Precarious Employment on Mental Health: the Case of Italy. Munich MPRA: 20, tabl.

<http://mpra.ub.uni-muenchen.de/61405/>

In this paper, we investigate the impact of precarious employment on mental health using a unique dataset that matches information on mental health with labour characteristics for a set of employees in Italy. We examine the causal effect of temporary contracts, their duration and the number of contract changes during the year on psychotropic medication prescription. To this end, we estimate a dynamic probit model, and deal with the potential endogeneity of regressors by adopting a control function approach, recently advanced by Wooldridge (2014). Our results show that the probability of psychotropic medication prescription is higher for workers under temporary job contracts. More days of work under temporary contract as well as more changes in temporary contracts significantly increase the probability of being depressed. We also find that moving from permanent to temporary

contracts increases depression; symmetrically, although with a smaller effect in absolute value, moving from temporary to permanent contracts tends to reduce it. An exploratory data analysis corroborates the hypothesis that depression developed after a movement to precarious employment may permanently affect future job trajectories. One lesson to learn from our empirical work is that policies aimed at enhancing the flexibility of the labour market to boost firms competitiveness, if increasing the precariousness of employment, may also produce side effects on the wellbeing and mental health of employees, ultimately having consequences on firms productivity and health care costs.

Niedhammer, I., et al. (2014). "Fractions of cardiovascular diseases and mental disorders attributable to psychosocial work factors in 31 countries in Europe." *Int Arch Occup Environ Health* **87**(4): 403-411.

**OBJECTIVES:** The aim of this study was to evaluate the fractions of cardiovascular diseases and mental disorders attributable to three psychosocial work factors, job strain, effort-reward imbalance (ERI) and job insecurity, in 31 countries in Europe. **METHODS:** The prevalence of exposure (Pe) to job strain, ERI and job insecurity was calculated using the sample of 29,680 workers from 31 countries of the 2005 European Working Conditions Survey. Relative risks (RR) were obtained from three published meta-analyses. Pe and RR estimates were used to calculate attributable fractions (AF). **RESULTS:** Pe estimates were 26.90, 20.44 and 14.11% for job strain, ERI and job insecurity in Europe, and significant differences were observed between countries. The job strain and ERI AFs for cardiovascular diseases were, respectively, 4.46% (significantly different from zero for Europe and all countries, but without any differences between countries) and 18.21% (not significantly different from zero for Europe and without differences between countries). The significant job strain and job insecurity AFs for mental disorders were 18.16 and 4.53% in Europe, without any significant difference between countries. The significant ERI AF for mental disorders was 14.81%, and significant differences were found between countries; the 3 highest AFs were observed in Greece, Slovenia and Turkey, and the 3 lowest in Bulgaria, Ireland and Latvia. **CONCLUSION:** This study is the first one to provide fractions of cardiovascular diseases and mental disorders attributable to three psychosocial work factors for the whole Europe and to explore the differences between 31 countries. These results may be useful to guide European and national prevention policies as well as to evaluate the economic costs of diseases attributable to these exposures.

Rhode, E., et al. (2014). The Effect of Economic Insecurity on Mental Health: Recent Evidence from Australian Panel Data. *Discussion Paper Economics ; 2014-06*. Brisbane University of Queensland: 27 , tabl., fig.

<https://ideas.repec.org/p/gri/epaper/economics201406.html>

This paper estimates the impact of economic insecurity on the mental health of Australian adults. Taking microdata from the 2001-2011 HILDA panel survey, we produce a conceptually diverse set of insecurity measures and explore their relationships with the SF-36 mental health index. By using fixed effects models that control for unobservable heterogeneity, and by exploiting exogenous fluctuations in economic conditions as an identification strategy, we produce estimates that correct for endogeneity more thoroughly than previous works. Our results show that exposure to economic risks has consistently detrimental health effects. The main novelty comes from the breadth of risks that are found to be harmful. Job insecurity, financial dissatisfaction, reductions in income, an inability to meet standard expenditures and a lack of access to emergency funds all adversely affect health. This suggests that the common element of economic insecurity (rather than idiosyncratic phenomena associated

with any specific risk) is likely to be hazardous. Our preferred estimates indicate that a standard deviation shock to economic insecurity lowers an individual's mental health score by between 1.4 and 2 percentage points. If applied uniformly across the Australian population, such a shock would increase the morbidity rate of mental disorders by 2.5-3.8%.

Rottmann, H. (2014). Do unemployment benefits and employment protection influence suicide mortality? An international panel data analysis. OTH im Dialog: Weidener Diskussionspapiere ; 42: 25 , fig.

<https://ideas.repec.org/p/zbw/hawdps/42.html>

We examine the economic and social determinants of suicide mortality in a panel of 25 OECD countries over the period 1970 - 2011 and explicitly analyze the effects of unemployment and labor market institutions on suicide rates. In line with a large body of literature, our results suggest that unemployment and social factors are important determinants of suicide mortality. The results also indicate that unemployment benefits decrease suicides of males, while relatively strict employment protection regulations increase suicide mortality. These findings indicate that labor market institutions may influence job satisfaction and the quality of life in industrial countries. We suggest taking into account the role of labor market institutions when analyzing the effects of institutional and economic determinants on health.

Ruokolainen, M., et al. (2014). "Are the most dedicated nurses more vulnerable to job insecurity? Age-specific analyses on family-related outcomes." J Nurs Manag **22**(8): 1042-1053.

AIM: To examine the moderating roles of job dedication and age in the job insecurity-family-related well-being relationship. BACKGROUND: As job insecurity is a rather permanent stressor among nurses nowadays, more research is needed on the buffering factors alleviating its negative effects on well-being. METHODS: A total of 1719 Finnish nurses representing numerous health care organisations participated in this cross-sectional study. Moderated hierarchical regression analysis was used to examine the associations. RESULTS: Nurses' younger age and low job dedication operated as protective factors against the negative effect of high job insecurity on parental satisfaction. The effect of job dedication on family-related well-being was also age-specific: high job dedication protected younger nurses from the negative effect of job insecurity on work-family conflict and parental stress, whereas among older nurses those who reported low job dedication showed better well-being in the presence of high job insecurity. CONCLUSIONS: The most job-dedicated nurses were more vulnerable to job insecurity in relation to parental satisfaction. In addition, high job dedication combined with high age implied more work-family conflict and parental stress in the presence of high job insecurity. IMPLICATIONS FOR NURSING MANAGEMENT: Managers should seek to boost younger nurses' job dedication and to prevent older nurses' over-commitment.

Strandh, M., et al. (2014). "Unemployment and mental health scarring during the life course." Eur J Public Health **24**(3): 440-445.

BACKGROUND: There has been little research on the long-term relationship between unemployment experiences and mental health over the life course. This article investigates the relationship between youth unemployment as well as that of unemployment experiences during later periods and mental health at ages 16, 21, 30 and 42 years. METHODS: The study makes use of the 'Northern Swedish Cohort' (NSC), a 27-year prospective cohort study. The cohort, investigated at ages 16, 18, 21, 30 and 42 years, consisted of all graduates from compulsory school in an industrial town in Sweden. Of the original 1083 participants, 94.3%

of those still alive were still participating at the 27-year follow up. Mental health, measured through a three-item index of nervous symptoms, depressive symptoms and sleeping problems, was analysed using a repeated measures linear mixed models approach using ages 16, 21, 30 and 43 years. Unemployment exposure was measured as exposure to at least a 6-month spell during three periods; 18-21, 21-30 and 30-42 years. RESULTS: Youth unemployment was shown to be significantly connected with poorer mental health at all three target ages, 21, 30 and 42 years. Later singular unemployment experiences did not appear to have the same long-term negative effects. There was however an accumulation in poorer mental health among respondents with unemployment experiences during two, and even more so three, of the periods. CONCLUSION: There are long-term mental health scarring effects of exposure to youth unemployment and multiple exposure to unemployment during the life course

## 2013

(2013). Santé mentale et emploi : Belgique. Santé mentale et emploi: 133 , tabl., graph., fig. <http://www.oecd.org/fr/els/emp/leprojetdelocdesurlasantementaleetleemploi.htm>

Dans les pays de l'OCDE, la gestion des problèmes de santé mentale dans la population d'âge actif devient un enjeu essentiel pour les politiques sociales et du marché du travail. Les gouvernements de ces pays sont de plus en plus nombreux à reconnaître que les pouvoirs publics ont un rôle important à jouer pour maintenir au travail les personnes souffrant de troubles mentaux ou pour faciliter la réintégration de celles qui sont sorties du marché de l'emploi, ainsi que pour prévenir l'apparition de ce type de troubles. Ce rapport relatif à la Belgique est le premier d'une série de travaux analysant l'approche adoptée par différents pays de l'OCDE face aux défis plus larges, décrits dans la publication *Mal-être au travail ? Mythes et réalités sur la santé mentale et l'emploi* (OCDE, 2012), auxquels sont confrontés les pouvoirs publics en matière d'éducation, de santé, de politique sociale et d'emploi. Sa conclusion est que la Belgique dispose déjà d'un système comportant de nombreux atouts structurels, qui ne sont cependant pas encore exploités de manière optimale.

Alterman, T., et al. (2013). "Job insecurity, work-family imbalance, and hostile work environment: prevalence data from the 2010 National Health Interview Survey." *Am J Ind Med* **56**(6): 660-669.

BACKGROUND: Little nationally representative information on job insecurity, work-family imbalance, and hostile work environments experienced by workers in the US is available. METHODS: Prevalence rates from the 2010 National Health Interview Survey (NHIS) were calculated for three workplace psychosocial factors (job insecurity, work-family imbalance, bullying/harassment) using SUDAAN to account for the complex NHIS sample design. RESULTS: Data were available for 17,524 adults who worked in the 12 months that preceded the interview. Overall prevalence rates were 31.7% for job insecurity, 16.3% for work-family imbalance, and 7.8% for hostile work environment (being bullied or harassed). The highest prevalence rate of job insecurity was found for construction and extraction occupations. Workers in legal occupations had the highest prevalence rate of work-family imbalance. Workers in protective service occupations had the highest prevalence rate of hostile work environment. CONCLUSIONS: We identified demographic characteristics along with industries and occupations with the highest prevalence rates for three adverse workplace psychosocial factors. These data can be used for benchmarking and identification of targets for investigation and intervention activities.

Berchick, E. R., et al. (2012). "Inequality and the association between involuntary job loss and depressive symptoms." *Soc Sci Med* **75**(10): 1891-1894.

<https://www.ncbi.nlm.nih.gov/pubmed/22901666>

Although socioeconomic status (SES) has been shown to be associated with susceptibility to involuntary job loss as well as with health, the ways in which individual SES indicators may moderate the job loss-health association remain underexplored. Using data from the Americans' Changing Lives study, we estimate the ways in which the association between job loss and depressive symptoms depends on five aspects of SES: education, income, occupational prestige, wealth, and homeownership. Our findings indicate that higher SES prior to job loss is not uniformly associated with fewer depressive symptoms. Higher education and lower prestige appear to buffer the health impacts of job loss, while financial indicators do not. These results have a number of implications for understanding the multidimensional role that social inequality plays in shaping the health effects of job loss.

Ferrie, J. E., et al. (2013). "Job insecurity and incident coronary heart disease: the Whitehall II prospective cohort study." *Atherosclerosis* **227**(1): 178-181.

**OBJECTIVE:** This study uses a prospective design to examine the association between self-reported job insecurity and incident coronary heart disease; an association which has been little investigated previously. **METHODS:** Participants were 4174 British civil servants (1236 women and 2938 men), aged 42 to 56 with self-reported data on job insecurity and free from coronary heart disease at baseline (1995-6). These participants were followed until 2002-4, an average of 8.6 years, for incident fatal coronary heart disease, clinically verified incident non-fatal myocardial infarction, or definite angina (a total of 168 events). **RESULTS:** Cox proportional hazard models adjusted for socio-demographic characteristics showed job insecurity to be associated with a 1.42-fold (95% CI, 1.05-1.93) risk of incident coronary heart disease compared with secure employment. Adjustment for physiological and behavioral cardiovascular risk factors had little effect on this estimate; 1.38 (1.01-1.88). **CONCLUSION:** This study suggests that job insecurity may adversely affect coronary health.

Johannessen, H. A., et al. (2013). "Effects of occupational role conflict and emotional demands on subsequent psychological distress: a 3-year follow-up study of the general working population in Norway." *J Occup Environ Med* **55**(6): 605-613.

**OBJECTIVE:** To examine the impact of occupational role conflict and emotional demands on subsequent psychological distress. **METHODS:** A randomly drawn cohort from the general Norwegian working-age population was followed up for 3 years (n = 12,550; response rate = 67%). Eligible respondents were in paid work during the reference week in 2006 and 2009 or temporarily absent from such work (n = 6,745; response rate = 68%). **RESULTS:** In the fully adjusted model, both high role conflict (odds ratios = 1.53; 95% CI = 1.15 to 2.03) and high emotional demands (odds ratios = 1.38; 95% CI = 1.13 to 1.69) were significant predictors of psychological distress. Additional significant predictors were low job control, bullying/harassment, and job insecurity (P < 0.05). **CONCLUSIONS:** Considering all of the evaluated work-related factors, role conflict and emotional demands contributed the most to the population risk of developing psychological distress.

Kahn, H. (2013). Unemployment and Mental Health. *The Psychology of the Recession on the Workplace*. Antoniou, A.-S. G. et Cooper, C. L., New Horizons in Management. Cheltenham, U.K. and Northampton, Mass.: Elgar: 196-208.

Kozak, A., et al. (2013). "Psychosocial work-related predictors and consequences of personal burnout among staff working with people with intellectual disabilities." *Res Dev Disabil* **34**(1): 102-115.

The purposes of this study were to investigate the potential predictors of personal burnout among staff working with people with intellectual disabilities and to investigate whether personal burnout is associated with health and work-related outcomes. A cross-sectional survey was carried out in 2011 in 30 residential facilities in northern Germany (N = 409, response rate 45%). The German standard version of the Copenhagen Psychosocial Questionnaire was used. In a multiple logistic regression analysis, we identified factors which were predictive of personal burnout, such as work-privacy conflict (OR = 1.04, 95% CI 1.03, 1.05), emotional demands (OR = 1.03, 95% CI 1.01, 1.05), role conflicts (OR = 1.02, 95% CI 1.02, 1.03), job insecurity (OR = 1.03, 95% CI 1.01, 1.05) and feedback (OR = 0.98, 95% CI 0.97, 0.99). These factors explained 49% of the total variance. Higher levels of personal burnout were significantly correlated with higher rates of intention to leave the job and cognitive stress symptoms ( $p < .01$ ). Low values of personal burnout were associated with greater job satisfaction, good general health, and higher satisfaction with life ( $p < .01$ ). The present study indicates that improving the psychosocial work environment at the organizational level may reduce personal burnout and may also diminish unfavorable outcomes, such as intention to leave or job dissatisfaction.

Maclean, H. C., et al. (2013). Economic Downturns and Substance Abuse Treatment: Evidence from Admissions Data. *NBER Working Paper Series ; n° 19115*. Cambridge NBER: 41 , fig., tabl. <http://www.nber.org/papers/w19115>

This study investigates the effect of economic downturns on substance abuse treatment admissions using data from the Treatment Episodes Data Set between 1992 and 2010. Given the differences between alcohol and illicit drugs, we separately examine these two classes of substances. Changes in admissions may be driven by both demand and supply side determinants of substance abuse treatment, and we include supply side proxies in our regressions to isolate the role of demand. We find that admissions for both alcohol and illicit drugs decrease in downturns. Unconditional quantile regressions reveal that the relationship varies across the admissions distribution: results are driven by states with low admissions. Our findings shed new light on the relationship between economic downturns and substance abuse, and have implications for public health policy and prioritization of government spending.

Mauno, S., et al. (2013). "Does aging make employees more resilient to job stress? Age as a moderator in the job stressor-well-being relationship in three Finnish occupational samples." *Aging Ment Health* **17**(4): 411-422.

**OBJECTIVES:** This study examined whether an employee's age moderates the relationships between job stressors (i.e. job insecurity, workload, work-family conflict) and self-rated well-being (i.e. work-family enrichment, life satisfaction, job satisfaction, vigor at work). **METHOD:** Analysis of covariance and moderated hierarchical regression analysis were used to examine the cross-sectional Finnish data collected among service sector employees (N = 1037), nurses (N = 1719), and academic employees (N = 945). **RESULTS:** In a situation of high job insecurity, the younger nurses reported higher work-family enrichment, job satisfaction, and vigor compared to their older colleagues. A similar result was also found among the service sector workers in relation to vigor at work. Thus, young age buffered against negative outcomes

related to job insecurity. Moreover, older age buffered against the negative effect of high workload on job satisfaction among the service sector and against high work-family conflict on life satisfaction among the academic employees. **CONCLUSION:** More attention should be paid to the ability of younger employees to manage problems related to work-family imbalance and high workload, and to older employees' ability to cope with job insecurity. The findings of this study recommend different stress management interventions for older and younger employees.

Mewes, R., et al. (2013). "[Job insecurity versus unemployment: unequal in socioeconomic status but comparable detrimental effects on mental health and health care utilization]." Psychother Psychosom Med Psychol **63**(3-4): 138-144.

Knowledge about differential effects of unemployment and job insecurity on mental health and health care utilization are of high relevance. There are no studies which compare unemployed persons and persons with an insecure job in terms of different mental health indicators, and which investigate the mediating effect of mental health on health care utilization. Somatoform symptoms, anxiety, depression, physical health, and health care utilization were assessed in 161 unemployed persons, 218 persons with an insecure job, and 957 securely employed persons. Unemployed persons and persons with an insecure job showed equally worse mental health than securely employed persons on average. They also had significantly higher health care utilization. Mental health was a full mediator between job insecurity and unemployment on the one hand and health care utilization on the other hand. An adequate mental health care is necessary for unemployed persons as well as for persons with an insecure job.

Modrek, S. et Cullen, M. R. (2013). "Health consequences of the 'Great Recession' on the employed: evidence from an industrial cohort in aluminum manufacturing." Soc Sci Med **92**: 105-113.

While the negative effects of unemployment have been well studied, the consequences of layoffs and downsizing for those who remain employed are less well understood. This study uses human resources and health claims data from a large multi-site fully insured aluminum company to explore the health consequences of downsizing on the remaining workforce. We exploit the variation in the timing and intensity of layoff to categorize 30 plants as high or low layoff plants. Next, we select a stably employed cohort of workers with history of health insurance going back to 2006 to 1) describe the selection process into layoff and 2) explore the association between the severity of plant level layoffs and the incidence of four chronic conditions in the remaining workforce. We examine four health outcomes: incident hypertension, diabetes, asthma/COPD and depression for a cohort of approximately 13,000 employees. Results suggest that there was an increased risk of developing hypertension for all workers and an increased risk of developing diabetes for salaried workers that remain at the plants with the highest level of layoffs. The hypertension results were robust to a several specification tests. In addition, the study design selected only healthy workers, therefore our estimates are likely to be a lower bound and suggest that adverse health consequences of the 2007-2009 recession may have affected a broader proportion of the population than previously expected.

Modrek, S. et Cullen, M. R. (2013). "Job insecurity during recessions: effects on survivors' work stress." BMC Public Health **13**: 929.

**BACKGROUND:** Previous studies show a variety of negative health consequences for the remaining workforce after downsizing events. This study examined self-reported work stress

from 2009-2012 in the context of a large multi-site aluminum manufacturing company that underwent severe downsizing in 2009. METHODS: This study examined the association between work stress and working at a work site that underwent severe downsizing. We assessed the level of downsizing across thirty plants in 2009 and categorized seven as having undergone severe downsizing. We linked plant-level downsizing information to individual workers' responses to an annual work engagement survey, which included three work stress questions. From 2009 to 2012 over 14, 000 employees were asked about their experience of work stress. Though the surveys were anonymous, the surveys captured employees' demographic and employment characteristic as well as plant location. We used hierarchical logistic regressions to compare responses of workers at severely downsized plants to workers at all other plant while controlling for demographic and plant characteristics. Responses to the work stress questions and one control question were examined. RESULTS: In all yearly surveys salaried workers consistently reported having more work stress than hourly workers. There was no differential in work stress for workers at severely downsized plants in 2009. In 2010 to 2012, salaried workers who remained at severely downsized plants reported significantly higher work stress than salaried workers at all other plants across multiple work stress questions. Examination of the 2006 survey confirmed that there were no pre-existing differences in work stress among salaried employees working at plants that would eventually experience severe downsizing. In addition, there was no difference in responses to the control question at severely downsized plants. CONCLUSION: Salaried workers at plants with high layoffs experienced more work stress after 2009 than their counterparts at non-high layoff plants. Increased work stress is important to monitor and may be a mediating pathway through which the external economic environment leads to adverse health outcomes.

Mohseni-Cheraghloou, A. (2013). "Labor Markets and Mental Wellbeing: Labor Market Conditions and Suicides in the United States (1979-2004)." *Journal of Socio-Economics* **45**: 175-186.  
<http://www.sciencedirect.com/science/journal/10535357>

Applying a fixed-effects panel analysis to a 1979-2004 panel data of the U.S. states, this essay re-examines the link between labor markets and suicides in the United States. By disaggregating the analysis across genders and three different age groups (20-34, 35-64, and 65+) and analyzing several other labor market indicators besides overall unemployment rates, the essay finds that deteriorations in labor markets is associated with hikes in suicide rates of only men and women between 35 and 64 years of age. In other words, higher group-specific unemployment rates, larger deviations of unemployment rates from their group-specific trends, and larger variance in the overall unemployment rates are all associated with higher suicide rates of adults aged 35-64, or prime working-age adults. These findings suggest that the mental wellbeing of prime working-age adults is more dependent on labor market conditions than people in other age groups. Therefore, during period when prime working-age adults are facing unfavorable labor market conditions, U.S. suicide prevention programs must especially target this group of population.

Nicholson, P. J. (2013). "Health risk from job insecurity needs to be mitigated in these "VUCA times"." *Bmj* **347**: f5504.

Niedhammer, I., et al. (2013). "Psychosocial work factors and sickness absence in 31 countries in Europe." *Eur J Public Health* **23**(4): 622-629.

BACKGROUND: The studies on the associations between psychosocial work factors and sickness absence have rarely included a large number of factors and European data. The

objective was to examine the associations between a large set of psychosocial work factors following well-known and emergent concepts and sickness absence in Europe. METHODS: The study population consisted of 14,881 male and 14,799 female workers in 31 countries from the 2005 European Working Conditions Survey. Psychosocial work factors included the following: decision latitude, psychological demands, social support, physical violence, sexual harassment, discrimination, bullying, long working hours, shift and night work, job insecurity, job promotion and work-life imbalance. Covariates were as follows: age, occupation, economic activity, employee/self-employed status and physical, chemical, biological and biomechanical exposures. Statistical analysis was performed using multilevel negative binomial hurdle models to study the occurrence and duration of sickness absence. RESULTS: In the models, including all psychosocial work factors together and adjustment for covariates, high psychological demands, discrimination, bullying, low-job promotion and work-life imbalance for both genders and physical violence for women were observed as risk factors of the occurrence of sickness absence. Bullying and shift work increased the duration of absence among women. Bullying had the strongest association with sickness absence. CONCLUSION: Various psychosocial work factors were found to be associated with sickness absence. A less conservative analysis exploring each factor separately provided a still higher number of risk factors. Preventive measures should take psychosocial work environment more comprehensively into account to reduce sickness absence and improve health at work at European level.

Surawera, I. K., et al. (2013). "Physical and psychosocial factors associated with wrist or hand pain among Australian hospital-based nurses." *Inj Prev* **19**(1): 13-18.

OBJECTIVE: To assess the personal, physical and psychosocial factors associated with wrist or hand pain in Australian hospital-based nurses. METHODS: Wrist or hand pain, associated disability and sickness absence, demographic, occupational, physical, psychosocial and personal factors among nurses working for three hospitals in Melbourne, Australia, were assessed in a cross-sectional study. Factors associated with wrist or hand pain in the past month were assessed using logistic regression. RESULTS: This analysis was based on 1111 participants. The prevalence of wrist or hand pain in the past month was 15.3%. Repeated movements of the wrist or finger >4 h (OR 2.63, 95% CI 1.80 to 3.84), high job strain (1.54, 1.04 to 2.28), job insecurity (1.55, 1.04 to 2.28), somatisation tendency (2.73, 1.75 to 4.26), pain catastrophising (1.56, 1.03 to 2.37), better mental (0.97, 0.95 to 0.99) and physical (0.96, 0.94-0.98) health and well-being were associated with wrist or hand pain in the past month, after adjusting for possible confounding factors. When all significant factors were examined in the same model, repeated movements of the wrist or finger >4 h (2.50, 1.71 to 3.67), somatisation (2.61, 1.65 to 4.13) and better physical health and well-being (0.96, 0.94 to 0.99) remained independently associated with wrist or hand pain in the past month. CONCLUSIONS: This study highlights that wrist or hand pain is prevalent in hospital nurses. Workplace physical factors and personal factors were associated with wrist or hand pain. Further longitudinal investigation is needed to examine the predictive nature of these factors.

Thielen, K., et al. (2013). "Employment consequences of depressive symptoms and work demands individually and combined." *European Journal of Public Health* **24**(1): 34-39.

Virtanen, M., et al. (2013). "Perceived job insecurity as a risk factor for incident coronary heart disease: systematic review and meta-analysis." *Bmj* **347**: f4746.

OBJECTIVE: To determine the association between self reported job insecurity and incident

coronary heart disease. DESIGN: A meta-analysis combining individual level data from a collaborative consortium and published studies identified by a systematic review. DATA SOURCES: We obtained individual level data from 13 cohort studies participating in the Individual-Participant-Data Meta-analysis in Working Populations Consortium. Four published prospective cohort studies were identified by searches of Medline (to August 2012) and Embase databases (to October 2012), supplemented by manual searches. REVIEW METHODS: Prospective cohort studies that reported risk estimates for clinically verified incident coronary heart disease by the level of self reported job insecurity. Two independent reviewers extracted published data. Summary estimates of association were obtained using random effects models. RESULTS: The literature search yielded four cohort studies. Together with 13 cohort studies with individual participant data, the meta-analysis comprised up to 174,438 participants with a mean follow-up of 9.7 years and 1892 incident cases of coronary heart disease. Age adjusted relative risk of high versus low job insecurity was 1.32 (95% confidence interval 1.09 to 1.59). The relative risk of job insecurity adjusted for sociodemographic and risk factors was 1.19 (1.00 to 1.42). There was no evidence of significant differences in this association by sex, age (<50 v >= 50 years), national unemployment rate, welfare regime, or job insecurity measure. CONCLUSIONS: The modest association between perceived job insecurity and incident coronary heart disease is partly attributable to poorer socioeconomic circumstances and less favourable risk factor profiles among people with job insecurity.

Vives, A., et al. (2013). "Employment precariousness and poor mental health: evidence from Spain on a new social determinant of health." *J Environ Public Health* **2013**: 978656.

BACKGROUND: Evidence on the health-damaging effects of precarious employment is limited by the use of one-dimensional approaches focused on employment instability. This study assesses the association between precarious employment and poor mental health using the multidimensional Employment Precariousness Scale. METHODS: Cross-sectional study of 5679 temporary and permanent workers from the population-based Psychosocial Factors Survey was carried out in 2004-2005 in Spain. Poor mental health was defined as SF-36 mental health scores below the 25th percentile of the Spanish reference for each respondent's sex and age. Prevalence proportion ratios (PPRs) of poor mental health across quintiles of employment precariousness (reference: 1st quintile) were calculated with log-binomial regressions, separately for women and men. RESULTS: Crude PPRs showed a gradient association with poor mental health and remained generally unchanged after adjustments for age, immigrant status, socioeconomic position, and previous unemployment. Fully adjusted PPRs for the 5th quintile were 2.54 (95% CI: 1.95-3.31) for women and 2.23 (95% CI: 1.86-2.68) for men. CONCLUSION: The study finds a gradient association between employment precariousness and poor mental health, which was somewhat stronger among women, suggesting an interaction with gender-related power asymmetries. Further research is needed to strengthen the epidemiological evidence base and to inform labour market policy-making.

## 2012

(2012). Mental Health in times of the economic crisis : workshop, Bruxelles : Communauté européenne.

Ce rapport résume les communications et discussions d'un congrès, qui s'est tenu à Bruxelles le 19 juin 2012 sur l'impact de la crise sur la santé mentale des Européens. Il souligne

notamment la fragilité mentale des jeunes adultes en situation difficile sur le marché de l'emploi.

Blekesaune, M. (2012). "Job insecurity and sickness absence: correlations between attrition and absence in 36 occupational groups." *Scand J Public Health* **40**(7): 668-673.

AIMS: To investigate how job insecurity, as indicated by attrition rates out of employment, affects sickness absence among remaining workers. METHODS: A longitudinal analysis investigated how the percentage of workers absent due to sickness was affected by attrition out of employment in Norwegian Labour Force Surveys from 1997 to 2005, between 31 quarterly observations at the level of 36 occupational groups. RESULTS: Rising attrition is associated with more sickness absence. CONCLUSIONS: Previous research has argued that job insecurity can lead to more absence because of a stressor effect as well as to less absence because of a disciplinary effect. This research indicates that the stressor effect is stronger than the disciplinary effect.

Burgard, S. A., et al. (2012). "Perceived job insecurity and health: the Michigan Recession and Recovery Study." *J Occup Environ Med* **54**(9): 1101-1106.

OBJECTIVE: To examine the association between perceived job insecurity in the next 12 months and current health with a sample representing working-aged employed adults in southeast Michigan in late 2009/early 2010 (n, 440 to 443). METHODS: Logistic regression was used to compare the health of participants who perceived job insecurity with those who did not, with adjustments for objective employment problems and social characteristics. RESULTS: Insecure workers were more likely to report fair or poor self-rated health (odds ratio [OR], 2.68; 95% confidence interval [CI], 1.14 to 6.32), symptoms suggesting major or minor depression (OR, 6.76; 95% CI, 3.34 to 13.3), and anxiety attacks (OR, 3.73; 95% CI, 1.40 to 9.97), even after correction for confounding factors. CONCLUSION: This study provides evidence that perceived job insecurity may be linked to health even among those who avoided unemployment in the late-2000s recession.

Debus, M. E., et al. (2012). "Catch me if I fall! Enacted uncertainty avoidance and the social safety net as country-level moderators in the job insecurity-job attitudes link." *J Appl Psychol* **97**(3): 690-698.

Job insecurity is related to many detrimental outcomes, with reduced job satisfaction and affective organizational commitment being the 2 most prominent reactions. Yet, effect sizes vary greatly, suggesting the presence of moderator variables. On the basis of Lazarus's cognitive appraisal theory, we assumed that country-level enacted uncertainty avoidance and a country's social safety net would affect an individual's appraisal of job insecurity. More specifically, we hypothesized that these 2 country-level variables would buffer the negative relationships between job insecurity and the 2 aforementioned job attitudes. Combining 3 different data sources, we tested the hypotheses in a sample of 15,200 employees from 24 countries by applying multilevel modeling. The results confirmed the hypotheses that both enacted uncertainty avoidance and the social safety net act as cross-level buffer variables. Furthermore, our data revealed that the 2 cross-level interactions share variance in explaining the 2 job attitudes. Our study responds to calls to look at stress processes from a multilevel perspective and highlights the potential importance of governmental regulation when it comes to individual stress processes.

Diene, E., et al. (2012). "Relationships between impact on employment, working conditions, socio-

occupational categories and symptoms of post-traumatic stress disorder after the industrial disaster in Toulouse, France." Soc Psychiatry Psychiatr Epidemiol **47**(8): 1309-1319.

**OBJECTIVES:** The aims of this paper were (1) to analyze the prevalence of symptoms of post-traumatic stress disorder (S-PTSD) in a population of workers 1 year after an industrial disaster; and (2) to assess the role of factors of vulnerability such as the occupational impact of a disaster and economic conditions. **METHODS:** A cross-sectional survey assessing the relationships between socio-occupational category, impact on employment and S-PTSD was conducted by the self-administered impact of event scale-revised. **RESULTS:** The prevalence of S-PTSD in workers in the peripheral zone (<3 km around the explosion site) was 12% in men and 18% in women. Factors significantly associated with S-PTSD in men were non-managerial socio-occupational category: employees (ORa = 4.3; [2.3; 7.8]), factory workers/laborers (ORa = 3.7; [1.8; 7.6]), intermediate professions (ORa = 3.3; [1.9; 5.9]), and artisans (ORa = 3; [1.3; 7.7]); and layoff (ORa = 2.6; [1.5; 4.5]) or unusable workplace after the explosion (ORa = 1.8; [1.1; 2.8]). In women, factors significantly associated with S-PTSD were the socio-occupational categories of employees and factory workers (ORa = 2.2; [1.4; 3.5]), artisans (ORa = 2.7; [1.3; 5.7]) and intermediate professions, (ORa = 1.5; [1; 2.3]) and reporting of an occupational accident (ORa = 1.5; [1.1; 2.2]). **CONCLUSION:** Impact on the workplace and socioeconomic conditions were associated with S-PTSD. The epidemiological approach in disaster situations needs to be improved, particularly in the social and occupational dimension when economically active populations are involved. Vulnerable subgroups, defined by occupational impact and low socioeconomic category, should be taken into account.

Geuskens, G. A., et al. (2012). "Enterprise restructuring and the health of employees: a cohort study." J Occup Environ Med **54**(1): 4-9.

**OBJECTIVE:** To examine the influence of enterprise restructuring on general health and emotional exhaustion, and to investigate which factors explain the relation between restructuring and these outcomes. **METHODS:** Longitudinal data of the Netherlands Working Conditions Cohort Study were used. At baseline and after 12 months, 9076 employees filled out a questionnaire. Logistic regression analysis was applied. **RESULTS:** Prolonged exposure to restructuring increased the likelihood of poor general health, and its influence was partly explained by job insecurity. Emotional exhaustion was more likely among employees that experienced prolonged exposure to restructuring or restructuring during the past year. Job insecurity explained the influence of prolonged restructuring, together with job demands and supervisor's support. **CONCLUSIONS:** Prolonged exposure to restructuring adversely affects general health and emotional exhaustion in employees, and its influence seems to be explained by job insecurity.

Lakkis, N. A., et al. (2012). "Psychological distress and job stressors among Lebanese workers: experience from a private sector." Arch Environ Occup Health **67**(3): 133-144.

No published data exists on the prevalence of psychological distress (PD) among the Lebanese working population, and its association with job stressors. A cross-sectional study was conducted in 2003 among Lebanese employees in a private administrative company. All employees (n = 200) received an anonymous questionnaire by mail. The General Health Questionnaire (GHQ-28) was used to estimate the prevalence of PD. Multiple regression analyses were performed to evaluate the relationship between GHQ-28 Likert score (0-84) and job stressors and other covariates. The participation rate was 79.3%. PD was identified in 30.0% of the studied population. A significant association was found between PD and lack of

moral support, a recent disturbing event, feeling of job insecurity, and inability to be proactive. The results showed a high prevalence of PD in the studied population with significant association with job stressors.

LaMontagne, A. D., et al. (2012). "Psychosocial and other working conditions: variation by employment arrangement in a sample of working Australians." *Am J Ind Med* **55**(2): 93-106.

**BACKGROUND:** The evidence linking precarious employment with poor health is mixed. Self-reported occupational exposures in a population-based Australian sample were assessed to investigate the potential for differential exposure to psychosocial and other occupational hazards to contribute to such a relationship, hypothesizing that exposures are worse under more precarious employment arrangements (EA). **METHODS:** Various psychosocial and other working conditions were modeled in relation to eight empirically derived EA categories with Permanent Full-Time (PFT) as the reference category (N = 925), controlling for sex, age, and occupational skill level. **RESULTS:** More precarious EA were associated with higher odds of adverse exposures. Casual Full-Time workers had the worst exposure profile, showing the lowest job control, as well as the highest odds of multiple job holding, shift work, and exposure to four or more additional occupational hazards. Fixed-Term Contract workers stood out as the most likely to report job insecurity. Self-employed workers showed the highest job control, but also the highest odds of long working hours. **CONCLUSIONS:** Psychosocial and other working conditions were generally worse under more precarious EA, but patterns of adverse occupational exposures differ between groups of precariously employed workers.

Marchand, A., et al. (2012). "Psychological distress in Canada: the role of employment and reasons of non-employment." *Int J Soc Psychiatry* **58**(6): 596-604.

**BACKGROUND:** This study investigated variations in psychological distress in a large sample of the Canadian population according to employment status, occupation, work organization conditions, reasons for non-employment, stress and support outside the work environment, family situation and individual characteristics. **METHODS:** Data came from cycle 4 (2000-1) of the Canadian National Population Health Survey conducted by Statistics Canada. Multiple regression analyses, adjusted for the family situation, the level of support from the social network and the individual characteristics, were carried out on a sample of 7258 individuals aged from 18 to 65 years. **RESULTS:** Occupation, social support at work, age, self-esteem, presence of children aged five and under and social support outside of the workplace were associated with lower levels of psychological distress, while permanent and temporary disability, psychological demands in the workplace, job insecurity, female gender, and stressful financial, marital and parental situations were related to higher levels of psychological distress. **CONCLUSIONS:** Findings from this study suggest that, in terms of psychological distress, having a job is not always better than non-employment, and that specific non-employment situations associate differently with psychological distress.

Mazloumi, A., et al. (2012). "Work ability index (WAI) and its association with psychosocial factors in one of the petrochemical industries in Iran." *J Occup Health* **54**(2): 112-118.

**OBJECTIVES:** In recent decades, work ability index (WAI) has been a common practical tool to measure individuals' work ability in many European, Asian and South American countries. However, there is no study concerning work ability in Iran. The aim of this study was to determine the work ability index in an Iranian petrochemical job setting and to examine its relationship with psychosocial factors. **METHODS:** A cross-sectional study was conducted

among 420 male workers in various occupations. Work ability was evaluated using the WAI questionnaire developed by FIOH; the Job content questionnaire (JCQ) was used to assess psychosocial factors. RESULTS: The mean WAI score was 39.1 (SD=5.7) among workers in the studied petrochemical industry. Multiple linear regression analysis revealed a significant association between mean WAI score and age, job tenure, educational level, rest and sleep status and vocational education. Moreover, the results showed that skill discretion, coworker support and supervisor support were positively associated with the mean WAI score. On the other hand, it was inversely associated with job demands, job strain and job insecurity. CONCLUSIONS: This study was the first research to determine WAI in an important industry in Iran. Overall, work ability was in the "Good" category among the workers in the studied field. On the basis of the WAI guidelines, this level should be maintained and promoted to excellent level by providing supportive countermeasures. The WAI score was significantly associated with psychosocial factors. The results showed that even in heavy physical work, factors such as job insecurity, skill discretion, job strain and social support play an important role in maintaining work ability. A positive combination of "psychosocial characteristics" of the job with "individual resources" can promote work ability in such occupations.

Naswall, K., et al. (2012). "Job insecurity as a predictor of physiological indicators of health in healthy working women: an extension of previous research." *Stress Health* **28**(3): 255-263.

Job insecurity has been linked to different negative outcomes, such as negative work attitudes and health problems, with most studies including self-reported outcomes. Extending earlier research, the present study includes both self-reported and physiological indicators of health and sets out to investigate whether higher levels of job insecurity are related to higher levels of allostatic load, higher levels of morning cortisol, more physician-diagnosed symptoms of ill-health and poorer self-rated health. The study also investigated whether self-rated health mediated the relation between job insecurity and physiological outcomes. This was cross-sectionally studied in a cohort of Swedish women who participated in a large-scale longitudinal study focusing on life span development and adaptation. The results showed that job insecurity was related to self-rated health and morning cortisol, and, contrary to expectations, that job insecurity was unrelated to allostatic load and physician ratings, both directly and indirectly. The results indicate that, in healthy working women, job insecurity may be less detrimental to long-term physiological health than originally hypothesized.

Niedhammer, I., et al. (2012). "Exposure to psychosocial work factors in 31 European countries." *Occup Med (Lond)* **62**(3): 196-202.

BACKGROUND: Although psychosocial work factors are recognized as major occupational risk factors, little information is available regarding the prevalence of exposure to these factors and the differences in exposure between countries. AIMS: To explore the differences in various psychosocial work exposures between 31 European countries. METHODS: The study was based on a sample of 14,881 male and 14,799 female workers from the 2005 European Working Conditions Survey. Eighteen psychosocial work factors were studied: low decision latitude (skill discretion and decision authority), high psychological demands, job strain, low social support, iso-strain, physical violence, sexual harassment, bullying, discrimination, work-family imbalance, long working hours, high effort, job insecurity, low job promotion, low reward and effort-reward imbalance. Covariates were age, number of workers in household, occupation, economic activity, self-employed/employee, public/private sector and part/full time work. Statistical analysis was performed using multilevel logistic regression analysis. RESULTS: Significant differences in all psychosocial work factors were observed

between countries. The rank of the countries varied according to the exposure considered. However, some countries, especially Denmark, Netherlands and Norway, displayed a significantly lower prevalence of exposure to four factors or more, while some Southern and Eastern countries, especially Czech Republic, Greece, Lithuania and Turkey, had a higher prevalence. CONCLUSIONS: Differences in psychosocial work exposures were found between countries. This study is the first to compare a large set of psychosocial work exposures between 31 European countries. These findings may be useful to guide prevention policies at European level.

Sirvio, A., et al. (2012). "Precariousness and discontinuous work history in association with health." Scand J Public Health **40**(4): 360-367.

AIMS: Precarious type of employment may have a negative impact on health, notably on low psychological wellbeing. The basis of the former relationship is constructed by definition and operationalisation of precariousness. In this research, we first experimented with a construct of work history in the operationalisation of precariousness and second studied the relationship between precariousness and health. METHODS: The research data originated from a large population-based birth cohort (NFBC 1966). The study sample consists of 3449 respondents to the postal questionnaire at the age of 31 and the information supplemented by the register data of the Finnish Centre for Pensions. Health was measured by self-reports of doctor-diagnosed/treated illnesses and HSCL-25 for mental symptoms. RESULTS: Our operationalisation with a construct of discontinuous work history captured the precarious insecure relation to work. The precarious workers were found to have proportionally more mental symptoms in comparison with permanent workers. The perception of distress was stronger among precarious workers who perceived high job insecurity. However, there were no differences in doctor-diagnosed/treated illnesses between precarious and permanent workers. CONCLUSIONS: The study suggests that the construct of work history is a useful element in defining precariousness. The study also illustrates the association of precariousness, perceived job insecurity, and mental distress. The study suggests further research on disadvantages experienced by precarious workers.

Slopen, N., et al. (2012). "Job strain, job insecurity, and incident cardiovascular disease in the Women's Health Study: results from a 10-year prospective study." PLoS One **7**(7): e40512.

OBJECTIVES: Research about work-related stressors and cardiovascular disease (CVD) has produced mixed findings. Moreover, a paucity of data exists regarding the long-term associations between job strain and job insecurity and CVD among women. METHODS: We used Cox proportional hazard models to examine the relationship between job strain, job insecurity, and incident CVD over 10 years of follow-up among 22,086 participants in the Women's Health Study (mean age 57+/-5 years). RESULTS: During 10 years of follow-up there were 170 myocardial infarctions (MI), 163 ischemic strokes, 440 coronary revascularizations, and 52 CVD deaths. In models adjusted for age, race, education, and income, women with high job strain (high demand, low control) were 38% more likely to experience a CVD event than their counterparts who reported low job strain (low demand, high control; Rate Ratio (RR) = 1.38, 95% Confidence Interval (CI) = 1.08-1.77), and women with active jobs (high demand, high control) were 38% more likely to experience a CVD event relative to women who reported low job strain (95% CI = 1.07-1.77). Outcome-specific analyses revealed that high job strain predicted non-fatal myocardial infarction (RR = 1.67, CI = 1.04-2.70), and coronary revascularization (RR = 1.41, CI = 1.05-1.90). No evidence of an association between job insecurity and long-term CVD risk was observed. CONCLUSION: High strain and active jobs, but not job insecurity, were related to increased CVD risk among women. Both job

strain and job insecurity were significantly related to CVD risk factors. With the increase of women in the workforce, these data emphasize the importance of addressing job strain in CVD prevention efforts among working women.

Snipes, M., et al. (2012). "Unemployment Fluctuations and Regional Suicide: 1980-2006." Journal of Applied Economics and Business Research **2**(2): 103-122.  
<http://www.aebrjournal.org/current-issue.html>

This study examines the potential link between macroeconomic fluctuations, using the unemployment rate as a proxy, and the probability of a person choosing to commit suicide. It extends the theory and empirical work used in previous studies by delineating the United States into nine sub-regions. This enabled testing as to whether there are significant differences in the incidence of suicides between sub-regions due to changes in general economic activity measured through changes in the unemployment rate. The focus here is to establish if this relationship is unique to any particular region(s) of the country. If so, perhaps there are significant policy implications with regard to suicide prevention by allocating our mental health resources to those areas most affected whenever there is a severe abatement in general economic activity. Examining regional variations in the rate of suicide may inform us regarding the relative causative influence of labor issues and other economic factors on the suicide decision.

Wagenaar, A. F., et al. (2012). "Impact of employment contract changes on workers' quality of working life, job insecurity, health and work-related attitudes." J Occup Health **54**(6): 441-451.

OBJECTIVES: Changes in employment contracts may impact the quality of working life, job insecurity, health and work-related attitudes. We examined the validity of two partly competing theoretical approaches. Based upon a segmentation approach, we expected no change in scores among stable trajectories, whereas upward trajectories were expected to be for the better and downward trajectories to be for the worse (Hypothesis 1). As turnover theories suggest that this hypothesis may only apply to workers who do not change employer, we also examined these contract trajectories stratified for a change of employer (Hypothesis 2). METHODS AND RESULTS: Drawing on the 2007 and 2008 waves of the Netherlands Working Conditions Cohort Study (N=9,688), repeated measures analysis of covariance showed little across-time change in the criterion variables, thus largely disconfirming our first hypothesis. These results could (at least partly) be explained by employer change; this was generally associated with improved scores among all contract trajectories (Hypothesis 2). However, workers receiving a less stable contract from the same employer were found to be at risk for health and well-being problems. CONCLUSIONS: Segmentation theory-based assumptions on contract trajectories primarily apply to stable and downward contract trajectories at the same employer, whereas assumptions from turnover theories better apply to contract trajectories combined with a change of employer. Future research should focus more closely on factors predicting "involuntary" downward trajectories into precarious temporary employment or unemployment.

Wang, J., et al. (2012). "A population-based longitudinal study on work environmental factors and the risk of major depressive disorder." Am J Epidemiol **176**(1): 52-59.

To investigate the relation between work environmental factors and the risk of major depressive disorder (MDD) over 1 year, the authors conducted a population-based longitudinal study of randomly selected employees in Alberta, Canada (January 2008 to

November 2011). Participants without a current or lifetime diagnosis of MDD at baseline (n = 2,752) were followed for 1 year. MDD was assessed using the World Health Organization's Composite International Diagnostic Interview-Auto 2.1. The overall 1-year incidence of MDD was 3.6% (95% confidence interval: 2.8, 4.6); it was 2.9% (95% confidence interval: 1.9, 4.2) in men and 4.5% (95% confidence interval: 3.3, 6.2) in women. The relations between work environmental factors and MDD differed by sex. In men, high job strain increased the risk of MDD in those who worked 35-40 hours per week; job insecurity and family-to-work conflict were predictive of MDD. Women who worked 35-40 hours per week and reported job insecurity, a high effort-reward imbalance, and work-to-family conflict were at a higher risk of developing MDD. Job strain, effort-reward imbalance, job insecurity, and work-to-family conflicts are important risk factors for the onset of MDD and should be targets of primary prevention. However, these work environmental factors appear to operate differently in men and in women.

## 2011

Butterworth, P., et al. (2011). "The psychosocial quality of work determines whether employment has benefits for mental health: results from a longitudinal national household panel survey." *Occup Environ Med* **68**(11): 806-812.

**OBJECTIVES:** Although employment is associated with health benefits over unemployment, the psychosocial characteristics of work also influence health. We used longitudinal data to investigate whether the benefits of having a job depend on its psychosocial quality (levels of control, demands and complexity, job insecurity, and unfair pay), and whether poor quality jobs are associated with better mental health than unemployment. **METHOD:** Analysis of seven waves of data from 7,155 respondents of working age (44,019 observations) from a national household panel survey. Longitudinal regression models evaluated the concurrent and prospective association between employment circumstances (unemployment and employment in jobs varying in psychosocial job quality) and mental health, assessed by the MHI-5. **RESULTS:** Overall, unemployed respondents had poorer mental health than those who were employed. However the mental health of those who were unemployed was comparable or superior to those in jobs of the poorest psychosocial quality. This pattern was evident in prospective models: those in the poorest quality jobs showed greater decline in mental health than those who were unemployed ( $B = 3.03$ ,  $p < 0.05$ ). The health benefits of becoming employed were dependent on the quality of the job. Moving from unemployment into a high quality job led to improved mental health (mean change score of +3.3), however the transition from unemployment to a poor quality job was more detrimental to mental health than remaining unemployed (-5.6 vs -1.0). **CONCLUSIONS:** Work of poor psychosocial quality does not bestow the same mental health benefits as employment in jobs with high psychosocial quality.

Cheng, Y., et al. (2011). "Employment insecurity, workplace justice and employees' burnout in Taiwanese employees: a validation study." *Int J Behav Med* **18**(4): 391-401.

**BACKGROUND:** Employment insecurity and workplace injustice are important psychosocial hazards. However, few studies of these associations have been conducted in Chinese-speaking populations. **PURPOSE:** This study evaluated the psychometric properties of a Chinese version of employment insecurity and workplace justice scales, and examined their associations with the levels of workers' burnout status in Taiwanese workers. **METHOD:** Study subjects were participants in a national survey of employees in Taiwan, consisting of

9,636 men and 7,406 women. A self-administered questionnaire was used to assess employment insecurity (six items) and workplace justice (nine items), as well as other psychosocial work characteristics. After the survey was completed, in-depth interviews with 10 employees were conducted for a qualitative evaluation. RESULTS: Cronbach's alpha was 0.87 or greater for the workplace justice scale and 0.76 or greater for the employment insecurity scale, indicating satisfactory internal consistencies. Exploratory factor analyses revealed a factor pattern consistent with the theoretically assumed structure, except that the items with statements in reversed direction were loaded on separated factors. Higher levels of employment insecurity and lower levels of workplace justice were associated with higher burnout scores. However, results from the qualitative interviews suggested that some questionnaire items contained double-barreled questions, and some questions were misinterpreted or considered irrelevant by participants. CONCLUSION: The Chinese version of employment insecurity and workplace justice scales were found to have satisfactory reliability and validity. However, improvement of these scales is still needed.

Green, F. (2011). "Unpacking the Misery Multiplier: How Employability Modifies the Impacts of Unemployment and Job Insecurity on Life Satisfaction and Mental Health." *Journal of Health Economics* **30**(2): 265-276.

<http://www.sciencedirect.com/science/journal/01676296>

Employability strongly moderates the effects of unemployment and of job insecurity on life satisfaction and mental health. Using nationally representative panel data from Australia, I find that an increase in employability from zero to 100% cancels around three quarters, in some cases more, of the detrimental effect of unemployment. Employability also matters for employees: an increase in men's employability from zero to 100% reduces the detrimental effect of job insecurity by more than half. The effects of extreme job insecurity and of unemployment are large and of comparable magnitudes. The findings are used to compute estimates of the well-being trade-off between increases in job insecurity and increases in employability, relevant to the support of "flexicurity" policies, and of the "misery multiplier", the extent to which the effect of a rise in aggregate unemployment on those becoming unemployed is supplemented by the effects on others' insecurity and employability.

Inoue, M., et al. (2011). "Job stress and mental health of permanent and fixed-term workers measured by effort-reward imbalance model, depressive complaints, and clinic utilization." *J Occup Health* **53**(2): 93-101.

OBJECTIVES: The number of workers with precarious employment has increased globally; however, few studies have used validated measures to investigate the relationship of job status to stress and mental health. Thus, we conducted a study to compare differential job stress experienced by permanent and fixed-term workers using an effort-reward imbalance (ERI) model questionnaire, and by evaluating depressive complaints and clinic utilization. METHODS: Subjects were permanent or fixed-term male workers at a Japanese research institute (n=756). Baseline data on job stress and depressive complaints were collected in 2007. We followed up with the same population over a 1-year period to assess their utilization of the company clinic for mental health concerns. RESULTS: The ERI ratio was higher among permanent workers than among fixed-term workers. More permanent workers presented with more than two depressive complaints, which is the standard used for the diagnosis of depression. ERI scores indicated that the effort component of permanent work was associated with distress, whereas distress in fixed-term work was related to job promotion and job insecurity. Moreover, over the one-year follow-up period, fixed-term workers visited the on-site clinic for mental concerns 4.04 times more often than permanent

workers even after adjusting for age, lifestyle, ERI, and depressive complaints.

**CONCLUSIONS:** These contrasting findings reflect the differential workloads and working conditions encountered by permanent and fixed-term workers. The occupational setting where employment status was intermingled, may have contributed to the high numbers of mental health-related issues experienced by workers with different employment status.

Jefferis, B. J., et al. (2011). "Associations between unemployment and major depressive disorder: evidence from an international, prospective study (the predict cohort)." *Soc Sci Med* **73**(11): 1627-1634.

<https://www.ncbi.nlm.nih.gov/pubmed/22019370>

Unemployment is known to be associated with poor mental health, but it is not clear how strongly unemployment leads to onset of diagnosed clinical depression (causation), or if depression raises the risks of becoming unemployed (health selection), or indeed if both pathways operate. We therefore investigate the direction of associations between clinical depression and unemployment in a cross-cultural prospective cohort study. 10,059 consecutive general practice attendees (18-75 years) were recruited from six European countries and Chile between 2003 and 2004 and followed up at six, 12 and (in a subset) 24 months. The analysis sample was restricted to 3969 men and women who were employed or unemployed and seeking employment and had data on depression measures. The outcomes were depressive episodes, assessed using the Depression Section of the Composite International Diagnostic Interview (CIDI) and self-reported employment status. Among 3969 men and women with complete data on depression and unemployment, 10% (n = 393) had depression symptoms and a further 6% (n = 221) had major depression at 12 months. 11% (n = 423) of the sample were unemployed by 6 months. Participants who became unemployed between baseline and 6 months compared to those employed at both times had an adjusted relative risk ratio for 12-month depression of 1.58 (95% Confidence Interval 0.76, 3.27). Participants with depression at baseline and 6 months compared to neither time had an odds ratio for 6-month unemployment of 1.58 (95% Confidence Interval 0.97, 2.58). We found evidence that causation and (to a lesser extent) health selection raise the prevalence of depression in the unemployed. Unemployed adults are at particular risk for onset of major clinical depression and should be offered extra services or screened. Given the trend for adults with depression to perhaps be at greater risk of subsequent unemployment, employees with depressive symptoms should also be supported at work as a precautionary principle.

Knabe, A. et Ratzel, S. (2011). "Scarring or Scaring? The Psychological Impact of Past Unemployment and Future Unemployment Risk." *Economica* **78**(310): 283-293.

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-0335/issues>

We reassess the 'scarring' hypothesis which states that unemployment experienced in the past reduces a person's current life satisfaction even after the person has become reemployed. Our results suggest that the scar from past unemployment operates via worsened expectations of becoming unemployed in the future, and that it is future insecurity that makes people unhappy. Hence the terminology should be altered by one letter: past unemployment 'scars' because it 'scares'.

Lilley, R., et al. (2011). "Combined exposures to workplace psychosocial stressors: relationships with mental health in a sample of NZ cleaners and clerical workers." *Am J Ind Med* **54**(5): 405-409.

**BACKGROUND:** A combined measure of two common psychosocial stressors, called job

pressure has previously been shown to be strongly associated with poor mental health in high status workers. This study tests the generalizability of this association to lower status workers. METHODS: A national random sample of cleaners and clerical workers was obtained from the New Zealand (NZ) electoral roll by occupational title (n = 596). Cross-sectional data on job stressors, demographics, and mental health (GHQ-12) was collected by computer-assisted telephone interviews. RESULTS: Combined exposure to low job control, high job demands, and job insecurity (high job pressure) was associated with markedly elevated odds (13-fold or higher) of poor mental health after adjustment for age, sex, occupation, and education. CONCLUSION: Combined with previous findings this suggests simultaneous exposure to more than one occupational psychosocial stressor may greatly increase the risk of poor mental health among both lower and higher status workers. This report adds to the larger literature in this area, supporting the need for expanded policy and practice intervention to reduce job stressors across the working population.

Marchand, A. et Blanc, M. E. (2011). "Occupation, work organisation conditions and the development of chronic psychological distress." *Work* **40**(4): 425-435.

OBJECTIVE: The contribution of occupation and work organisation conditions to the development of chronic psychological distress in the Canadian workforce was examined. PARTICIPANTS: Longitudinal data came from the first five cycles (Cycle 1=1994-1995, Cycle 5=2002-2003) of Statistics Canada's National Population Health Survey. A sample of 5,500 workers nested in 1,300 neighbourhoods and aged 15 to 55 years. METHODS: Data had a hierarchical structure and were analysed using multilevel logistic regression models. RESULTS: The results showed 46.4% of workers reported one episode of psychological distress, 23.5% more than one, and 10.6% three or more. Psychological distress decreased over time and varied significantly between individuals and neighbourhoods. Occupation was not significant, but psychological demands, job insecurity, and social support in the workplace were important determinants. The results showed strong contributions of individual and outside work factors (family, social support, neighbourhood). CONCLUSIONS: Research in occupational mental health must expand theoretical and empirical frameworks in order to capture actual workplace dynamics and the effects on workers' mental health. Interventions designed to reduce mental health problems should carefully evaluate not only the work environment itself, but also non-work factors and other individual characteristics.

Marchand, A., et al. (2011). "Work and high-risk alcohol consumption in the Canadian workforce." *Int J Environ Res Public Health* **8**(7): 2692-2705.

This study examined the associations between occupational groups; work-organization conditions based on task design; demands, social relations, and gratifications; and weekly high-risk alcohol consumption among Canadian workers. A secondary data analysis was performed on Cycle 2.1 of the Canadian Community Health Survey conducted by Statistics Canada in 2003. The sample consisted of 76,136 employees 15 years of age and older nested in 2,451 neighbourhoods. High-risk alcohol consumption is defined in accordance with Canadian guidelines for weekly low-risk alcohol consumption. The prevalence of weekly high-risk alcohol consumption is estimated to be 8.1% among workers. The results obtained using multilevel logistic regression analysis suggest that increased work hours and job insecurity are associated with elevated odds of high-risk alcohol consumption. Gender female, older age, being in couple and living with children associated with lower odds of high-risk drinking, while increased education, smoking, physical activities, and, and economic status were associated with higher odds. High-risk drinking varied between neighbourhoods, and gender moderates the contribution of physical demands. The results suggest that work made a

limited contribution and non-work factors a greater contribution to weekly high-risk alcohol consumption. Limits and implications of these results are discussed.

Tefft, N. (2011). "Insights on Unemployment, Unemployment Insurance, and Mental Health." Journal of Health Economics **30**(2): 258-264.

<http://www.sciencedirect.com/science/journal/01676296>

This paper contributes to the growing literature on the relationship between business cycles and mental health. It is one of the first applications in the economics literature to incorporate data on web searches from Google Insights for Search, and these unique data allow the opportunity to estimate the association between weekly unemployment insurance (UI) claims, in addition to monthly unemployment rates, and search indexes for "depression" and "anxiety". Results from state fixed effects models yield (1) a positive relationship between the unemployment rate and the depression search index and (2) a negative relationship between initial UI claims on the one hand and the depression and anxiety search indexes on the other. A lag analysis also shows that an extended period of higher levels of continued UI claims is associated with a higher depression search index.

Waenerlund, A. K., et al. (2011). "Is temporary employment related to health status? Analysis of the Northern Swedish Cohort." Scand J Public Health **39**(5): 533-539.

AIMS: The aim of this study was to investigate whether temporary employment was related to non-optimal self-rated health and psychological distress at age 42 after adjustment for the same indicators at age 30, and to analyze the effects of job insecurity, low cash margin and high job strain on this relationship. METHODS: A subcohort of the Northern Swedish Cohort that was employed at the 2007 follow-up survey (n = 907, response rate of 94%) was analyzed using data from 1995 and 2007 questionnaires. RESULTS: Temporary employees had a higher risk of both non-optimal self-rated health and psychological distress. After adjustment for non-optimal self-rated health at age 30 and psychological distress at age 30 as well as for sociodemographic variables, the odds ratios decreased but remained significant. However, after adjustment for job insecurity, high job strain and low cash margin the odds ratio dropped for non-optimal self-rated health but remained significant for psychological distress. CONCLUSIONS: Temporary employment may have adverse effects on self-rated health and psychological health after adjustment for previous health status and sociodemographic variables. Our findings indicate that low cash margin and job insecurity may partially mediate the association between temporary employment and health status.

Walsh, B. et Walsh, D. (2011). "Suicide in Ireland: The Influence of Alcohol and Unemployment." Economic and Social Review **42**(1): 27-47.

<http://www.esr.ie/esrpage4.html>

We model the behaviour of the Irish suicide rate over the period 1968-2009 using the unemployment rate and the level of alcohol consumption as the principal explanatory variables. We find that alcohol consumption is a significant influence on the suicide rate among younger males. Its influence on the female suicide rate is not well-established, although there is some evidence that it plays a role in the 15-24 age group. The unemployment rate is also a significant influence on the male suicide rate in the younger age groups but evidence of its influence on the female suicide rate is lacking. The behaviour of suicide rates among males aged 55 and over and females aged 25 and over is unaccounted for by our model. The findings suggest that higher alcohol consumption played a significant role in the very rapid increase in suicide mortality among young Irish males between the late

1980s and the end of the century. In the early twenty first century a combination of falling alcohol consumption and low unemployment led to a marked reduction in suicide rates. The recent rise in suicide rates may be attributed to the sharp rise in unemployment, especially among males, but it has been moderated by the continuing fall in alcohol consumption. Finally, we discuss some policy implications of our findings.

## 2010

Catalano, R., et al. (2010). "Selection in utero: a biological response to mass layoffs." Am J Hum Biol **22**(3): 396-400.

Most research describing the biological response to unemployment appears appropriately motivated by clinical or public health concerns and focuses on death, disease, and medical care. We argue that expanding the work to include other outcomes could contribute to basic science. As an example, we use the response to mass layoffs to discriminate between two explanations of low ratios of male to female live births in stressed populations. One explanation asserts that ambient stressors reduce the ratio of males to females conceived. The other argues that the maternal stress response selects against males in utero. We show that selection in utero better explains the observed data. We conclude that human adaptation to the economic environment deserves scrutiny from a wider array of scientists than it now receives.

Chirumbolo, A. et Areni, A. (2010). "Job Insecurity Influence on Job Performance and Mental Health: Testing the Moderating Effect of the Need for Closure." Economic and Industrial Democracy **31**(2): 195-214.

<http://eid.sagepub.com/archive/>

The moderating effect of the need for closure in the relationship between job insecurity, job performance, and mental health was investigated. The need for closure refers to a motivated need for certainty, intolerance of ambiguity, and preference for predictability. It was argued that the need for closure may function as a psychological moderator in dealing with job insecurity. Participants comprised 287 workers, who were administered a self-reported questionnaire. Results confirmed the negative relationship between job insecurity, performance, and mental health. The need for closure was positively related to job performance and unrelated to mental health. More interestingly, the need for closure exhibited multifaceted patterns of interactions with the different components of job insecurity. Higher need for closure revealed a buffering effect in conditions of higher quantitative job insecurity. In this case, individuals high (vs low) in the need for closure reported better job performance and mental health. Conversely, when qualitative job insecurity was higher, individuals high (vs low) in the need for closure reported an impaired job performance and mental health.

Fernandez, I. D., et al. (2010). "Association of workplace chronic and acute stressors with employee weight status: data from worksites in turmoil." J Occup Environ Med **52** *Suppl 1*: S34-41.

**OBJECTIVES:** To examine the independent and joint effects of psychosocial chronic and acute stressors with weight status and to report the intraclass correlation coefficient for body mass index (BMI). **METHODS:** Baseline data on 2782 employees from a group-randomized weight gain prevention intervention were examined to investigate the effect of high job strain and job insecurity on BMI and on the odds of overweight/obesity including potential confounders

and mediating variables. Data were analyzed using mixed models. RESULTS: The mediating variables removed the effect of high job strain on weight ( $\beta = 0.68$ ,  $P = 0.07$ ; odds ratios = 1.34, confidence interval = 1.00 to 1.80) whereas job insecurity was never significant. Intraclass correlation coefficient for BMI is 0.0195, 0.0193, and 0.0346 overall, for men and women, respectively. CONCLUSION: Worksite wellness should target health enhancing behaviors to minimize the health effects of psychosocial work conditions.

Giupponi, G., et al. (2010). "Socioeconomic risk factors and depressive symptoms in alcohol use disorders among male suicides in South Tirol, Italy." *J Addict Dis* **29**(4): 466-474.

The aim of the current study was to evaluate whether socioeconomic risk factors and depressive symptoms are associated with suicide in men with alcohol use disorders in South Tirol, Italy. The authors hypothesize that socioeconomic inequalities interact with greater psychopathology in men with alcohol use disorders who committed suicide. The authors found a positive association between unstable work positions and low educational attainment and alcohol use disorders in individuals who committed suicide. The results point to the need for careful assessment of subsyndromal depression in individuals with alcohol use disorders, especially when abuse is associated with socioeconomic risk factors such as lower educational attainment and unemployment or employment instability.

Luo, Z., et al. (2010). "Course of Major Depressive Disorder and Labor Market Outcome Disruption." *Journal of Mental Health Policy and Economics* **13**(3): 135-149.

<http://www.icmpe.org/test1/journal/journal.htm>

The heterogeneity of the course of major depressive disorder (MDD) has largely been ignored in past literature on the association between MDD and labor market outcomes. We use the National Epidemiological Survey on Alcohol and Related Conditions--a nationally representative panel survey--to categorize changes in MDD before and after wave I and before wave II into six courses: incident, recent remission, persistent remission, relapse, persistent depression, and no history of MDD. Odds ratios and marginal effects of MDD courses in multivariable multinomial regressions of labor market outcomes (being out of the labor force, being unemployed, working part-time, and working full-time--the reference outcome) are reported. We found men and women who exhibited persistent remission were equally likely to be in the labor force, employed, and working full-time, compared to those with no history of MDD, but recently remitted MDD increased the likelihood of being unemployed and working part-time for men.

Meltzer, H., et al. (2010). "Job insecurity, socio-economic circumstances and depression." *Psychol Med* **40**(8): 1401-1407.

BACKGROUND: Economic recessions are characterized by job insecurity and rising unemployment. The relationship between job insecurity and poor mental health is known. However, we do not know how this relationship is affected by individual socio-economic circumstances. METHOD: A random probability sample comprising 3581 respondents (1746 men and 1835 women) were selected from the third national survey of psychiatric morbidity in Great Britain. Fieldwork was carried out throughout 2007. Depression was assessed using the revised Clinical Interview Schedule and ICD-10 research diagnostic criteria administered by well-trained lay interviewers. RESULTS: One-fifth of all working men and women aged 16-64 years felt that their job security was poor. From a multivariate analysis of several job stressors, there was an increased likelihood of depression among those agreeing that their job security was poor [odds ratio (OR) 1.58, 95% confidence intervals (CI) 1.22-2.06,

p<0.001]. After controlling for age and sex, job insecurity (OR 1.86, 95% CI 1.47-2.35, p<0.001) and being in debt (OR 2.17, 95% CI 1.58-2.98, p<0.001) were independently associated with depression. CONCLUSIONS: Job insecurity has a strong association with feelings of depression even after controlling for biographic characteristics (age and sex), economic factors (personal debt) and work characteristics (type of work and level of responsibility). Despite the organizational changes needed to cope with a recession, employers should also take note of the additional distress experienced by workers at a time of great uncertainty, particularly those in less skilled jobs and in financial straits.

Netterstrom, B., et al. (2010). "Is the demand-control model still a useful tool to assess work-related psychosocial risk for ischemic heart disease? Results from 14 year follow up in the Copenhagen City Heart study." *Int J Occup Med Environ Health* **23**(3): 217-224.

OBJECTIVES: To test the usefulness of the Demand-Control Model as predictor for ischemic heart disease (IHD). MATERIALS AND METHODS: One thousand one hundred forty six actively employed men and women from the general population of Copenhagen participated at baseline in 1993-1994. They filled in questionnaires on the Demand-Control Model, job title, work place, civil status, family income, leisure time activity, smoking, medication, social support, social relations, conflicts, job responsibility, satisfaction, and insecurity and went through a medical examination, including measurements of coronary risk factors. All deaths and hospital admissions due to IHD, including first myocardial infarction (MI) in the cohort were traced in the Danish registries of deaths and hospital admissions to June 2007. RESULTS: 104 cases of first time hospitalisation or death due to IHD including 49 cases of MI occurred during 14 years follow up. Odds ratio (OR) compared to the relaxed group was 1.1 (0.1-3.1) among women and 1.6 (0.4-4.9) among men after confounder adjustment. Neither demands nor control were significantly associated with IHD. Among men 50 years of age or more, the risk for IHD was, however, elevated in the job strain group and the active group (OR = 3.5 and 3.2 respectively). Job insecurity was, however, strongly associated with IHD in men (OR = 2.7 (1.1-5.6)) after all adjustments. The risk was increased for MI too (OR = 2.7 (1.2-6.1)). Among women, the only significant association with IHD was for job dissatisfaction (OR = 3.0 (1.2-7.6)). CONCLUSION: In this population and in a period and society characterized by relative wealth and increasing employment rates, the Demand-control Model did not predict IHD. However, the feeling of job insecurity predicted both IHD and MI among men and job dissatisfaction predicted IHD among women.

Rugulies, R., et al. (2010). "Job insecurity and the use of antidepressant medication among Danish employees with and without a history of prolonged unemployment: a 3.5-year follow-up study." *J Epidemiol Community Health* **64**(1): 75-81.

BACKGROUND: A study was undertaken to investigate whether job insecurity predicts incident use of antidepressant medication and whether the association is modified by a history of prolonged unemployment. METHODS: A prospective follow-up study was performed in 5142 Danish employees, including 632 employees with and 4510 without a history of prolonged unemployment. Participants were drawn from a random 10% sample of the Danish population. Survey data on job insecurity were linked with register data on history of unemployment and dispensing of antidepressant medication between June 2000 and December 2003 retrieved from the Danish Medicinal Product Statistics. Respondents with major depression at baseline or antidepressant use in the 5 years preceding baseline were excluded. RESULTS: Job insecurity predicted use of antidepressants after adjustment for sex, age, cohabitation, socioeconomic position and alcohol consumption (OR 1.43, 95% CI 1.09 to 1.88). The effect was attenuated after further adjustment for baseline depressive symptoms

(OR 1.15, 95% CI 0.87 to 1.52). A history of prolonged unemployment predicted use of antidepressants in both models (OR 1.62, 95% CI 1.14 to 2.30 and OR 1.49, 95% CI 1.04 to 2.13, respectively) Compared with participants with neither job insecurity nor unemployment history, the OR for the joint effect of job insecurity and history of prolonged unemployment was substantially higher (OR 1.79, 95% CI 1.15 to 2.79) than the OR for job insecurity (OR 1.02) and unemployment history (OR 1.10) alone in the fully adjusted model. CONCLUSION: Job insecurity predicts incident use of antidepressants among Danish employees with a history of prolonged unemployment.

Woo, J. M., et al. (2010). "[Crisis intervention for workers in severely stressful situations after massive layoffs and labor disputes]." *J Prev Med Public Health* **43**(3): 265-273.

OBJECTIVES: Due to the economic crisis and globalization, many workers have been suffering from severe occupational stress due to job insecurity and struggles related to downsizing and restructuring. This study aims to assess the stress levels among workers involved in fierce labor disputes and massive layoffs and to evaluate their specific needs and satisfaction with counseling services set up to help workers cope with severely stressful situations? METHODS: The authors provided crisis intervention to workers in traumatic situations to compare the differential level of stress responses and needs among the workers remaining employed in a large auto factory, those laid off by it, and those laid off by other companies in the same region (Pyeongtaek, Gyeonggi Province). We measured stress levels using the worker's stress response inventory (WSRI) and heart rate variability (HRV), and assessed workers' satisfaction with the counseling services. RESULTS: 502 workers participated in the program. Fifty-seven percent of them consulted with occupational problems. The mean WSRI score of the workers remaining employed in the automobile factory was higher than that of the unemployed (employed: 39.8+/-19.9, unemployed: 29.3+/-18.8). Ninety-five percent of workers responded that they were satisfied or very satisfied with the counseling services. CONCLUSIONS: This study suggests the urgent need for the establishment of a national crisis intervention program dedicated to supporting workers in severely stressful situations.

## 2009

Bauer, G. F., et al. (2009). "Socioeconomic status, working conditions and self-rated health in Switzerland: explaining the gradient in men and women." *Int J Public Health* **54**(1): 23-30.

OBJECTIVES: Epidemiological research has confirmed the association between socioeconomic status (SES) and health, but only a few studies considered working conditions in this relationship. This study examined the contribution of physical and psychosocial working conditions in explaining the social gradient in self-rated health. METHODS: A representative sample of 10 101 employees, 5003 women and 5098 men, from the Swiss national health survey 2002 was used. SES was assessed according to the EGP-scheme. Working conditions included exposure to physical disturbances, physical strain, job insecurity, monotonous work and handling simultaneous tasks. For data analysis logistic regression analyses were performed. RESULTS: Data show a social gradient for self-rated health (SRH) as well as for physical and psychosocial working conditions. Logistic regression analysis controlling for age, gender and level of employment showed both physical and psychosocial working conditions to be significant predictors of SRH. Physical and psychosocial working conditions such as physical disturbances from work environment, physical strains in doing the job, monotony at work, job insecurity etc. could explain most of the social gradient of SRH in men and women. CONCLUSION: The study confirmed the relevance of modifiable physical and psychosocial

working conditions for reducing social inequality in health. Gender differences need to be considered in epidemiological and intervention studies.

Burgard, S. A., et al. (2009). "Perceived job insecurity and worker health in the United States." *Soc Sci Med* **69**(5): 777-785.

Economic recessions, the industrial shift from manufacturing toward service industries, and rising global competition have contributed to uncertainty about job security, with potential consequences for workers' health. To address limitations of prior research on the health consequences of perceived job insecurity, we use longitudinal data from two nationally-representative samples of the United States population, and examine episodic and persistent perceived job insecurity over periods of about three years to almost a decade. Results show that persistent perceived job insecurity is a significant and substantively important predictor of poorer self-rated health in the American's Changing Lives (ACL) and Midlife in the United States (MIDUS) samples, and of depressive symptoms among ACL respondents. Job losses or unemployment episodes are associated with perceived job insecurity, but do not account for its association with health. Results are robust to controls for sociodemographic and job characteristics, negative reporting style, and earlier health and health behaviors.

Domenighetti, G., et al. (2009). "Impact of job insecurity on sexual desire: an exploratory analysis." *Swiss Med Wkly* **139**(33-34): 486-492.

PRINCIPLES: To explore, for the first time, the impact of job insecurity on sexual desire. METHODS: Cross-sectional analysis of a nationally representative sample of 7247 individuals aged 20-64 years working as full or part-time employees in Switzerland. RESULTS: The logistic regression analysis showed that workers aged 20-49 years perceiving high levels of job insecurity are exposed to a significantly higher risk of decrease of sexual desire compared to the reference group. The risk is 53% higher among men (OR 1.53; 95% CI 1.16-2.01) and 47% for woman (OR 1.47; 1.13-1.91). No increased risk was found for employees aged 50-64 years old. CONCLUSION: An increasing fear of job loss is associated with a deterioration in sexual desire. These first preliminary findings should promote further epidemiological and clinical prospective studies on the impact of job insecurity on intimate relationships and sexual dysfunction.

Forcella, L., et al. (2009). "Occupational stress, job insecurity and perception of the health status in Italian teachers with stable or temporary employment." *J Biol Regul Homeost Agents* **23**(2): 85-93.

The object of this study is to analyse job stress and insecurity and the perception of symptoms (health status) of 374 teachers (30 women and 74 men) with stable or temporary employment in schools in Pescara, a town in Central Italy. Job strain and job insecurity were analysed by an Italian version of the Karasek's questionnaire, the perception of the health status by a 12 item test, and state and trait anxiety by STAI I and STAI II. There were no significant differences depending on the type of school. The young women with temporary contracts showed only higher levels of job insecurity than the women with stable employment, while those over 50 years old also showed more elevated values of job strain. Men with temporary contracts showed higher levels of both job insecurity and state and trait anxiety. The following highly significant correlations were observed: a) in women, job strain and perception of symptoms vs STAI I and STAI II ( $p < 0.001$ ); b) in men, job strain, job insecurity and perception of symptoms vs STAI II; job strain vs perception of symptoms as well as a negative correlation of decision latitude vs job insecurity, STAI I and STAI II ( $p < 0.01$ ).

These results highlight differences in the perception of job insecurity between men and women. In particular, the decision latitude (skill decision + decision authority) plays an important role in men; temporary employment is mainly related to anxiety in men, while anxiety enhances the perception of poor health status mainly in women.

Hong, R. H., et al. (2009). "Determination of appropriate sampling time for job stress assessment: the salivary chromogranin A and cortisol in adult females." *J Prev Med Public Health* **42**(4): 231-236.

**OBJECTIVES:** This study was conducted to determine the appropriate sampling time of the salivary stress markers, chromogranin A (CgA) and cortisol as objective indices of job stress assessment in adult females. **METHODS:** The subjects were 20 approximately 39-year-old women (13 office workers, 11 sales-service workers, and 11 college students) who were eligible for the study and free of acute and chronic medical conditions. Salivary CgA and cortisol levels were determined by enzyme-linked immunosorbent assay (ELISA). Saliva samples were collected (2 ml each) at 7:00, 8:00, 10:30, 12:00, 17:30, and 22:30 on a typical day. Salivary CgA and cortisol levels, according to sampling time, were compared among the three groups using general linear model. The full version of the Korean Occupational Stress Scale (KOSS), which includes socioeconomic characteristics, health behavior, work-related characteristics, and BMI, was used to assess the subjects' job stress. Multiple regression analysis of the job stressors identified by the KOSS was performed on salivary CgA and cortisol levels. **RESULTS:** The salivary CgA level peaked at 7:00 (time of awakening), then decreased and were maintained at a low level throughout the day, and increased slightly at 17:30. The salivary cortisol level increased steeply within the 1st hour after awakening, followed by a gradual decrease by 12:00, and was then maintained at a low level throughout the day. The salivary cortisol levels of subjects who worked < or = 5 days per week and graduated from the university were significantly lower at 8:00 ( $p=0.006$ ). The salivary cortisol levels of non-smokers were significantly lower at 7:00 ( $p=0.040$ ) and 8:00 ( $p=0.003$ ) compared to smokers. There were no significant differences in salivary CgA and cortisol levels at 10:30 and 12:00 in general characteristics. The regression coefficients on salivary CgA level were significant with interpersonal conflict at 17:30 and job insecurity at 22:30. Regression coefficients on salivary cortisol level were significant with organizational system and total job stressors at 17:30. **CONCLUSIONS:** We suggest that the appropriate sampling times for the salivary stress markers, CgA and cortisol, are at 7:00 (time of awakening), 8:00 (1 hour after awakening), 17:30 (early evening), and 22:30 (before sleep).

Ibrahim, S., et al. (2009). "A multi-group cross-lagged analyses of work stressors and health using Canadian National sample." *Soc Sci Med* **68**(1): 49-59.

This article examines the reciprocal relationships between work variables and health outcomes and if these relationships differ by social class (measured by occupational grouping). We used longitudinal data from the 1994/95--2002/03 Canadian National Population Health Survey (NPHS). Karasek's work stress variables were measured in the 1994/95 (cycle 1, time 1), 2000/01 (cycle 4, time 2) and 2002/03 (cycle 5, time 3) surveys. Analyses were limited to 2556 respondents aged 18-56 at time 1 and who remained in the same social class (as defined by occupational position) for all the three time points. Work variables used were job strain ratio, work social support and job insecurity. Health outcomes used were distress, depression and self-rated health. Multi-group path analyses were used to investigate the reciprocal relationships between work and health variables and if these relationships differed by social class. Analyses controlled for age, gender, marital status and work status. We find there is a differential burden of work psychosocial factors and health

outcomes by social class. The cross-lagged relationships between work and health depended on the outcome, social class and time lag. More significant paths from work to health were observed than reverse paths from health to work. More significant relationships between work and health were observed for the shorter time lag (2 years) compared to longer time lags (6 years). Low work social support and job insecurity were more detrimental to health for respondents in lower social class positions. Findings from this study highlight the importance of time lag, and to some extent social class, in the reciprocal relationships between work and health.

Park, S. G., et al. (2009). "Job stress and depressive symptoms among Korean employees: the effects of culture on work." *Int Arch Occup Environ Health* **82**(3): 397-405.

**OBJECTIVE:** This study was conducted to investigate the association between depressive symptoms and job stress, as measured by the KOSS, among Korean employees in small- and medium-sized enterprises, and examined which components of stress are involved in the risk for depression among males and females. **METHODS:** Data were collected from a work-stress survey of full-time employees of small- and medium-sized enterprises in Incheon, South Korea. A total of 3,013 participants were included in the analysis. Job stress was measured using 24 items (7 sub-scales) of the short form of Korean occupational stress scale (KOSS-SF), and depressive symptoms were evaluated using Center for epidemiologic studies depression scale (CES-D). **RESULTS:** After adjustment for confounding variables, most of subscales of job stress contributed to an increased risk of depressive symptoms, and job insecurity (male; OR = 2.02, 95%CI: 1.61-2.40, female; OR = 1.95, 95%CI: 1.42-2.70) and occupational climate (male; OR = 1.84, 95%CI: 1.49-2.28, female; OR = 1.78, 95%CI: 1.30-2.49) showed strong associations in both male and female. Other subscales revealed different effects for males and females; for males, job demands (OR = 1.68, 95%CI: 1.43-2.20), inadequate social support (OR = 1.55, 95%CI: 1.23-1.94), and lack of rewards (OR = 1.88, 95%CI: 1.48-2.37) were associated with depressive symptoms, whereas for females, organizational injustice (OR = 1.62, 95%CI: 1.14-2.30) was associated with depressive symptoms. **CONCLUSION:** These results indicate that job stress may play a significant role in increasing the risk of depressive symptoms, and that further preventive efforts and research are needed to reduce job stress and address health problems caused by job stress among Korean employees.

Simmons, L. A. et Swanberg, J. E. (2009). "Psychosocial work environment and depressive symptoms among US workers: comparing working poor and working non-poor." *Soc Psychiatry Psychiatr Epidemiol* **44**(8): 628-635.

**BACKGROUND:** The psychosocial work environment has been associated with mental health outcomes; however, little research has examined this relationship for low-wage workers. The purpose of this study was to investigate the relationship between psychosocial job characteristics and depressive symptoms for US workers using an expanded model of job quality. **METHODS:** Data were from the 2002 National Study of the Changing Workforce, a nationally representative study of wage and salaried workers in the US. Working poor was defined as households earning <250% of the federal poverty threshold. **RESULTS:** Multivariate logistic regression models show for working poor employees, job insecurity was the single significant correlate of depressive symptoms after controlling for other demographic and work environment variables. For working non-poor employees, high psychological demands and low supervisor and coworker support were associated with depressive symptoms. **CONCLUSIONS:** Findings suggest all jobs do not equally affect employees' depressive symptoms. Implications for research that may improve the mental health of the working poor in the US are presented.

Vanroelen, C., et al. (2009). "The structuring of occupational stressors in a Post-Fordist work environment. Moving beyond traditional accounts of demand, control and support." *Soc Sci Med* **68**(6): 1082-1090.

In this study, the traditional components of the Demand-Control-Support-Model are extended with a broad number of occupational stressors, while investigating associations with persistent fatigue, musculoskeletal complaints and emotional well-being. Furthermore, it is assessed how these stressors are structured into distinct dimensions within a population of wage-earners. In a representative cross-sectional sample of 11,099 Flemish (Belgian) employees a range of loglinear techniques is used: logit modelling, latent class analysis and Modified LISREL-modelling. Quantitative, emotional and physical demands, repetitive movements, types of work schedules, problematic autonomy, task variation, social relationships with superiors, job insecurity and bullying behaviour are associated with at least one of the health outcomes, while sudden schedule changes are not. These occupational stressors constitute five dimensions: immaterial demands, physical demands, control over the work environment, social relationships at work and employment uncertainty. These latent dimensions are all significantly related with at least one of the health outcomes - with immaterial demands having the strongest effects. Contemporary work is characterised by a complex combination of stressors, structured within the population into a number of dimensions. More research on the interrelatedness of occupational stressors is needed.

## 2008

Edimansyah, B. A., et al. (2008). "Self-perceived depression, anxiety, stress and their relationships with psychosocial job factors in male automotive assembly workers." *Ind Health* **46**(1): 90-100.

Depression, anxiety and stress have been recognized as important mental outcome measures in stressful working settings. The present study explores the prevalence of self-perceived depression, anxiety and stress; and their relationships with psychosocial job factors. A cross-sectional study involving 728 male automotive assembly workers was conducted in two major automotive assembly plants in Malaysia using the validated Malay versions of the Depression Anxiety Stress Scales (DASS) and Job Content Questionnaire (JCQ). Based on the DASS cut-off of  $> \text{or } = 78$  percentile scores, the prevalence of self-perceived depression, anxiety and stress was 35.4%, 47.2% and 31.1%, respectively. Four (0.5%), 29 (4.0%) and 2 (0.3%) workers, respectively, reported extremely severe self-perceived depression, anxiety and stress. Multiple linear regression analyses, controlling for age, education, salary, duration of work and marital status, revealed that psychological job demand, job insecurity and hazardous condition were positively associated with DASS-Depression, DASS-Anxiety and DASS-Stress; supervisor support was inversely associated with DASS-Depression and DASS-Stress. We suggest that reducing psychological job demand, job insecurity and hazardous condition factors may improve the self-perceived depression, anxiety and stress in male automotive assembly workers. Supervisor support is protective for self-perceived depression and stress.

Frone, M. R. (2008). "Are work stressors related to employee substance use? The importance of temporal context assessments of alcohol and illicit drug use." *J Appl Psychol* **93**(1): 199-206.

In this study, the author explored the relations of 2 work stressors (work overload and job insecurity) to employee alcohol use and illicit drug use. The primary goal was to explore the importance of temporal context (before work, during the workday, and after work) in the assessment of substance use compared with context-free (overall) assessments. Data were collected from a national sample of U.S. workers (N = 2,790) who took part in a broad cross-sectional survey on workplace health and safety. Consistent with past research, the results fail to support a relation between work stressors and overall measures of alcohol and illicit drug use. However, the results support the relation of work stressors to alcohol and illicit drug use before work, during the workday, and after work. These results provide support for both the stress-induced substance use and stress response dampening propositions of the tension-reduction hypothesis. When exploring the work environment as a potential cause of employee substance use, these results underscore the importance of measures that assess alcohol and illicit drug use in terms of their temporal relation to the workday.

Fukuoka, E., et al. (2008). "Job strain and smoking cessation among Japanese male employees: a two-year follow-up study." *Acta Med Okayama* **62**(2): 83-91.

The purpose of the present study was to assess the association between job strain and smoking cessation among Japanese male employees. In 1997, a baseline questionnaire was given to 2,625 (2,113 males and 512 females) employees of an electronics firm in Gifu Prefecture, Japan. The self-administered questionnaire was a set of questions on smoking habits and consisted of items on socio-demographic variables and smoking habits, including the Japanese version of the Job Content Questionnaire (JCQ). The JCQ consists of scales of job control, job demand, supervisory support, coworker support, job insecurity, physical demands, and isometric load. A total of 733 male smokers were then followed for 2 years, with 446 completing a follow-up questionnaire in 1999 (follow-up rate, 61%). Logistic regression analyses were performed to examine associations between job strain and smoking cessation. Among the 446 participants, 38 had quit smoking. After adjusting for age ((odds ratio: OR) = 0.38, 95% (confidence interval: CI) = 0.15-0.94), men with a high level of physical demands at baseline showed a lower smoking cessation rate at follow-up than did those with a low level. However, when adjustments were made for age and other socio-demographic variables, the odds ratio of smoking cessation showed marginal significance (OR = 0.45, 95% CI = 0.16-1.29). There was no significant association between other job strain variables and smoking cessation at the 2-year follow-up. No significant association was found between job strain and change in the number of smoked cigarettes per day. The present study did not support the hypothesis that higher levels of job stressors are associated with a lower rate of smoking cessation among men.

Lau, B. et Knardahl, S. (2008). "Perceived job insecurity, job predictability, personality, and health." *J Occup Environ Med* **50**(2): 172-181.

**OBJECTIVE:** The present study sought to determine whether job insecurity is associated with personality traits and beliefs. In addition, it was tested whether aspects of personality confounded the relationships between job insecurity and health, or moderated this association. **METHODS:** At the first data collection, 5163 persons participated, and at the second data collection, 1946 persons of a random sample participated. Data were obtained from Oslo Health Study. **RESULTS:** The job insecurity aspect concerning confidence in having a good job in 2 years was more strongly related to the health variables, and particularly with mental distress, compared with other aspects of job insecurity. Type-A behavior predicted an increase in upper back pain (beta 0.07), while optimism predicted a change in lower back pain (beta -0.07). **CONCLUSIONS:** Job insecurity is associated with health; this association is

strongest for mental distress and self-reported health, and weaker for back-pain.

Mandal, B. et Roe, B. (2008). "Job Loss, Retirement and the Mental Health of Older Americans." Journal of Mental Health Policy and Economics **11**(4): 167-176.

<http://www.icmpe.org/test1/journal/journal.htm>

Millions of older individuals cope with physical limitations, cognitive changes, and various losses, such as bereavement. Given increased vulnerability to health problems during aging, work displacement might exacerbate these due to additional distress and to possible changes in medical coverage. Older Americans are of increasing interest to researchers and policymakers due to the sheer size of the Baby Boom cohort which is approaching retirement age, and due to the general decline in job security in the U.S. This research compares and contrasts the effect of involuntary job loss and retirement on the mental health of older Americans. Furthermore, it examines the impact of re-employment on the depressive symptoms. First difference models are used to control for latent effects and a two-stage least squares regression is used to account for reverse causality. We find that involuntary job loss worsens mental health, and re-employment recaptures the past mental health status.

Virtanen, M., et al. (2008). "Contribution of non-work and work-related risk factors to the association between income and mental disorders in a working population: the Health 2000 Study." Occup Environ Med **65**(3): 171-178.

OBJECTIVES: To examine the contribution of non-work and work factors to the association between income and DSM-IV depressive and anxiety disorders in a working population. METHODS: A representative sample of the Finnish working population aged 30-64 (1667 men, 1707 women) in 2000-2001 responded to a survey questionnaire on non-work factors (marital status, housing conditions, non-work social support, violence victimisation, smoking, physical symptoms), work factors (job demands, job control, social support at work, educational prospects, job insecurity) and household income. Somatic health was examined in a standard health examination. The 12-month prevalence of depressive and anxiety disorders was examined with the Composite International Diagnostic Interview. RESULTS: The risk of having a depressive or anxiety disorder was 2.8 times higher in the low-income group than in the high-income group among men and 2.0 times higher among women. For men, non-work and work factors explained 20% and 31% of this association, respectively. For women, the corresponding figures were 65% and 23%. CONCLUSIONS: Low income is associated with frequent mental disorders among a working population. In particular, work factors among men and non-work factors among women contribute to the income differences in mental health.

Wang, J. L., et al. (2008). "The relationship between work stress and mental disorders in men and women: findings from a population-based study." J Epidemiol Community Health **62**(1): 42-47.

OBJECTIVES: [corrected] This analysis estimated the gender-specific associations between work stress, major depression, anxiety disorders and any mental disorder, adjusting for the effects of demographic, socioeconomic, psychological and clinical variables. METHODS: Data from the Canadian national mental health survey were used to examine the gender-specific relationships between work stress dimensions and mental disorders in the working population (n = 24,277). Mental disorders were assessed using a modified version of the World Mental Health - Composite International Diagnostic Interview. RESULTS: In multivariate analysis, male workers who reported high demand and low control in the

workplace were more likely to have had major depression (OR 1.74, 95% CI 1.12 to 2.69) and any depressive or anxiety disorders (OR 1.47, 95% CI 1.05 to 2.04) in the past 12 months. In women, high demand and low control was only associated with having any depressive or anxiety disorder (OR 1.39, 95% CI 1.05 to 1.84). Job insecurity was positively associated with major depression in men but not in women. Imbalance between work and family life was the strongest factor associated with having mental disorders, regardless of gender.

CONCLUSIONS: Policies improving the work environment may have positive effects on workers' mental health status. Imbalance between work and family life may be a stronger risk factor than work stress for mental disorders. Longitudinal studies incorporating important workplace health research models are needed to delineate causal relationships between work characteristics and mental disorders.

## 2007

Fone, D., et al. (2007). "Places, people and mental health: a multilevel analysis of economic inactivity." *Soc Sci Med* **64**(3): 633-645.

<https://www.ncbi.nlm.nih.gov/pubmed/17070974>

This paper investigates multilevel associations between the common mental disorders of anxiety, depression and economic inactivity measured at the level of the individual and the UK 2001 census ward. The data set comes from the Caerphilly Health & Social Needs study, in which a representative survey of adults aged 18-74 years was carried out to collect a wide range of information which included mental health status (using the Mental Health Inventory (MHI-5) scale of the Short Form-36 health status questionnaire), and socio-economic status (including employment status, social class, household income, housing tenure and property value). Ward level economic inactivity was measured using non-means tested benefits data from the Department of Work and Pensions (DWP) on long-term Incapacity Benefit and Severe Disablement Allowance. Estimates from multilevel linear regression models of 10,653 individuals nested within 36 census wards showed that individual mental health status was significantly associated with ward-level economic inactivity, after adjusting for individual-level variables, with a moderate effect size of -0.668 (standard error=0.258). There was a significant cross-level interaction between ward-level and individual economic inactivity from permanent sickness or disability, such that the effect of permanent sickness or disability on mental health was significantly greater for people living in wards with high levels of economic inactivity. This supports the hypothesis that living in a deprived neighbourhood has the most negative health effects on poorer individuals and is further evidence for a substantive effect of the place where you live on mental health.

Kopp, M. S., et al. (2007). "Chronic stress and social changes: socioeconomic determination of chronic stress." *Ann N Y Acad Sci* **1113**: 325-338.

In the last decades in the transforming societies of Central and Eastern Europe, premature mortality increased dramatically, especially among men. Increasing disparities in socioeconomic conditions have been accompanied by a widening socioeconomic gradient in mortality among men. Social cohesion and meaning in life may help to counterbalance the widening gap in material circumstances. Not the difficult social situation in itself, but the subjective experience of relative disadvantage, the prolonged negative emotional state, that is, chronic stress seems to be the most important risk factor. The health consequences of a low socioeconomic situation among men might be mostly explained by chronic stress caused by work and close-partner-related factors, and the toxic components of this interaction are

depression and hopelessness. In the case of women, the broader personal and family relations are the most important health-related factors. Weekend workload, low social support at work and low control at work accounted for a large part of variation in male premature cardiovascular mortality rates, whereas job insecurity, high weekend workload, and low control at work contribute most markedly to variations in premature cardiovascular mortality rates among women. There are two general approaches that scientists and practitioners might take: train individuals and groups to use skills that will enable them to cope better with the stressful conditions that are damaging their health; and lobby governments to adopt policies that will result in decreased chronic stress on the societal level.

## 2006

Adam, M. L. et Flatau, P. (2006). "Symposium on Contemporary Social Issues: Job Insecurity and Mental Health Outcomes: An Analysis Using Waves 1 and 2 of HILDA." Economic and Labour Relations Review **17**(1): 143-170.

<http://search.informit.com.au/browseJournalTitle;res=IELBUS;issn=1035-3046>

The issue of job insecurity and its impact on employee's sense of well-being remains an under-researched topic. The objective of this paper is to utilise the HILDA data set to show how job insecurity impacts on mental health outcomes. An important feature of the HIWA survey is that it enables an examination of the relationship between the level of job insecurity and mental health outcomes at a given point in time as well as how changes over time in job insecurity impact on mental health outcomes for the employed. The results suggest that a strong and significant relationship exists between job insecurity and employee mental health outcomes.

Kennedy, S. et McDonald, J. T. (2006). "Immigrant Mental Health and Unemployment." Economic Record **82**(259): 445-459.

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291475-4932/issues>

In this paper we examine how the stresses associated with the transition to a new country combined with additional stress arising from a period of unemployment affect the mental health of immigrants. Australian immigrants are found to have poorer mental health at 6 months after arrival in Australia compared with 18 and 42 months. Furthermore, unemployment, and especially a long duration of unemployment, is found to be associated with poor mental health. We found that although immigrant women appear unaffected by their spouses' labour force status, there is evidence that immigrant men's mental health is affected by spouse labour force status.

## 2004

Schwaen, G. M. H., et al. (2004). "Effects of job insecurity from a workplace closure threat on fatigue and psychological distress." Journal of Occupational and Environmental Medicine **46**(5): 443-449.

The aim of this study was to prospectively investigate the effect of potential workplace closure, an externally attributed form of job insecurity, on fatigue and psychological distress. In April 1999, the minister responsible announced that a governmental agency would close

down one of its two locations. Baseline data from the employees were available before the closure announcement (n = 574) because they were enrolled in the Maastricht Cohort Study on "Fatigue at Work." In the closure group, the relative risk for becoming a psychological distress case was 1.61 (95% confidence interval [CI] = 1.27-2.05) during 13 months after the closure threat. Within the closure group, a difference in relative risk for psychological distress was observed between employees who self reported an increase in job insecurity (relative risk = 1.85; 95% CI = 1.41-2.42) and employees who did not report an increase in job insecurity (relative risk 1.14; 95% CI = 0.58-2.24)

## Impact de l'insécurité au travail sur la famille (conjoint, enfants)

### ÉTUDES FRANÇAISES

2016

Farache, J. (2016). L'impact du chômage sur les personnes et leur entourage : mieux prévenir et accompagner. *Les Avis du Conseil Economique - Social et Environnemental*. Paris CESE: 121 , fig., annexes.

<http://www.lecese.fr/travaux-publies/limpact-du-chomage-sur-les-personnes-et-leur-entourage-mieux-prevenir-et-accompagner>

Le chômage touche 10,6 % de la population active. 40 % des chômeur.euse.s ne sont pas indemnisé.e.s. Pourtant, l'impact du chômage sur les personnes et leur entourage reste méconnu. 14 000 décès par an lui sont imputables, il augmente le risque de séparation des couples, compromet l'avenir des enfants. Le chômage est un « facteur de risque » qui doit être appréhendé comme tel : organisation d'un suivi sanitaire et psychologique précoce ; accompagnement renforcé en termes d'accueil par Pôle emploi et d'insertion sociale et professionnelle... Mais c'est aussi le regard sur les personnes au chômage qu'il faut changer. La lutte contre les discriminations fondées sur la précarité sociale, la médiatisation de leur vécu, leur participation aux politiques publiques qui les concernent poursuivent cet objectif.

### ÉTUDES INTERNATIONALES

2017

Alessie, R., et al. (2017). Economic Downturns and Babies's Health. *Working paper ; 17/11*. Londres University of York: 29 , tabl., fig.

<http://www.york.ac.uk/economics/postgrad/herc/hedg/wps/>

We study the impact of provincial unemployment levels on birthweight using a sample of over 50,000 respondents from Lifelines – a cohort study from the northeastern Netherlands and we allow the effects to differ by babies' gender. We find that during periods of high unemployment fertility decreases and male babies are born with lower birthweight. The effect of unemployment on birthweight is particularly strong for boys born to older mothers and for babies born to smoking mothers. In addition, we study whether the effects are attributable to changes in cohort composition or in health behaviour of pregnant women. Our results indicate that even though the women who are pregnant during economic

downturns are more likely to have higher socio-economic status, the total effect of economic downturns on babies' health is negative.

Bunnings, C., et al. (2017). "Fear of Unemployment and Its Effect on the Mental Health of Spouses." *Health Economics* **26**(1): 104-117.

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-1050/issues>

Unemployment has been shown to have adverse effects on different aspects of a person's life, and even the fear of losing a job affects individuals negatively. In addition, not only the individuals directly affected but also their spouses and other family members might be affected. Using data from the German Socio-economic Panel, this study analyzes the relationship between individual job worries and spouse's mental well-being. The empirical results remain robust to different specifications and indicate that fear of job loss is negatively related to spouses' mental well-being and that this relationship seems to be stronger in single-income than in dual-income households.

## 2016

Golberstein, E., et al. (2016). Economic Conditions and Children's Mental Health. *NBER Working Paper Series* ; n° 22459. Cambridge NBER: 45 , fig., tabl., annexes.

<http://www.nber.org/papers/w22459>

Research linking economic conditions and health largely ignores children's mental health problems, which are the most common and consequential health issues for children and adolescents. We examine the effects of unemployment rates and housing prices on child and adolescent mental health and use of special education services for emotional problems in the 2001-2013 National Health Interview Survey. Mental health status declines as economic conditions deteriorate, and this result is pervasive across nearly every subgroup we examine, including families least likely to experience job loss. The use of special education services for emotional problems also rises when economic conditions worsen.

Page, M., et al. (2016). The Effects of Aggregate and Gender-Specific Labor Demand Shocks on Child Health. *NBER Working Paper Series* ; n° 22394. Cambridge NBER: 10 , fig., tabl., annexes.

<http://www.nber.org/papers/w22394>

In this paper, we estimate the relationship between cyclical changes in aggregate labor market opportunities and child health outcomes. In addition to using state unemployment rates to proxy for labor market conditions, as is common in the existing literature, we construct predicted employment growth indices that allow us to separately identify demand-induced changes in labor market opportunities for fathers and mothers. In contrast with prominent studies of adult health, we find no evidence that negative shocks to general economic conditions are associated with improvements in contemporaneous measures of children's health. We do find, however, that focusing on gender-inclusive economic variables obscures the extent to which the labor market affects children. Specifically, we find evidence that improvements in labor market conditions facing women are associated with worse child health, while improvements in men's labor market conditions have smaller positive effects on child health. These patterns, which are consistent with previous findings on the effects of individual parental employment and job displacement, suggest that family income and maternal time use are both important mechanisms mediating the effects of aggregate labor market conditions on child health.

Peter, F. (2016). "The Effect of Involuntary Maternal Job Loss on Children's Behaviour and Non-cognitive Skills." Labour Economics **42**: 43-63.

<http://www.sciencedirect.com/science/journal/09275371>

This paper uses propensity score methods to analyse the effect of involuntary maternal job loss on children's non-cognitive skills. My analyses are based on a rich and nationwide random sample, the German Socio-Economic Panel Study (SOEP) that includes information about maternal job loss and child behaviour and non-cognitive skills, in addition to a rich conditioning set. The results show that maternal job loss increases preschool children's socio-behavioural problems and decreases adolescents' belief in self-determination.

## 2015

Carlson, K. (2015). "Fear Itself: The Effects of Distressing Economic News on Birth Outcomes." Journal of Health Economics **41**: 117-132.

<http://www.sciencedirect.com/science/journal/01676296>

I use new administrative data on mass layoffs and plant closings to study the effects of distressing economic news. Exposure to stressful events during pregnancy can impair fetal development. I find that announcement of impending job losses leads to a transient decrease in the mean birth weight within the firm's county one to four months before the job losses. A loss of 500 jobs corresponds roughly to a decrease of 15-20 g and 16 percent greater risk of low birth weight. Layoffs announced late in pregnancy are most strongly linked to decreased birth outcomes.

Schaller, J. et Zerpa, M. (2015). Short-run Effects of Parental Job Loss on Child Health. NBER Working Paper Series ; n° 21745. Cambridge NBER: 45 , tabl., fig., annexes.

<http://www.nber.org/papers/w21745>

Recent research suggests that parental job loss has negative effects on children's outcomes, including their academic achievement and long-run educational and labor market outcomes. In this paper we turn our attention to the effects of parental job loss on children's health. We combine health data from 16 waves of the Medical Expenditure Panel Survey, which allows us to use a fixed effects specification and still have a large sample of parental job displacements. We find that paternal job loss is detrimental to the physical and mental health of children in low-socioeconomic status (SES) families, increasing their incidence of injuries and mental disorders. We separately find that maternal job loss leads to reductions in the incidence of infectious illness among children in high-SES families, possibly resulting from substitution of maternal care for market-based childcare services. Increases in public health insurance coverage compensate for a large share of the loss in private coverage that follows parental displacement, and we find no significant changes in routine or diagnostic medical care.

## 2014

Liu, H. et Zhao, Z. (2014). "Parental Job Loss and Children's Health: Ten Years after the Massive Layoff of the SOEs' Workers in China." China Economic Review **31**: 303-319.

<http://www.sciencedirect.com/science/journal/1043951X>

Beginning in the mid 1990s, China sped up its urban labor market reform and drastically restructured its state-owned enterprises (SOEs), which resulted in massive layoff of the SOEs' workers and a high unemployment rate. In this paper, we investigate the impact of parental job loss on their children's health, using six waves of the China Health and Nutrition Survey covering the period from 1991 to 2006. We find that paternal job loss has a significant negative effect on children's health, while maternal job loss has no significant effect. The rationale behind the findings is that the income loss resulting from maternal job loss is much smaller; meanwhile, the unemployed mothers are likely to increase their time inputs to child care, and this may alleviate the negative effect of maternal job loss. Our findings from a fixed effects model are robust to various specifications and alternative approaches.

Mendolia, S. (2014). "The Impact of Husband's Job Loss on Partners' Mental Health." Review of Economics of the Household **12**(2): 277-294.

<http://link.springer.com/journal/volumesAndIssues/11150>

The objective of this paper is to examine the impact of job loss on family mental well-being. The negative income shock can affect the mental health status of the individual who directly experiences such displacement, as well as the psychological well-being of his partner; also, job loss may have a significantly detrimental effect on life satisfaction, self-esteem, and on the individual's perceived role in society. This analysis is based on a sample of married and cohabitating couples from the first 14 waves of the British Household Panel Survey. In order to correct for the possible endogeneity of job loss, data from employment histories is utilised and redundancies (different from dismissals) in declining industries are used as an indicator of exogenous job loss. Results show evidence that couples in which the husband experiences a job loss are more likely to experience poor mental health.

## 2013

(2013). Les enfants de la récession. Impact de la crise économique sur le bien-être des enfants dans les pays riches. Florence Centre de recherche Innocenti de L'UNICEF: 52 , tabl.

[http://www.unicef-irc.org/publications/pdf/rc12-fr\\_web.pdf](http://www.unicef-irc.org/publications/pdf/rc12-fr_web.pdf)

Les données et observations de ce Bilan Innocenti révèlent des relations étroites et multiples entre l'impact de la Grande Récession sur les économies nationales et le déclin du bien-être des enfants depuis 2008. Les enfants souffrent plus et subissent des conséquences plus durables dans les pays où la récession a été la plus marquée. Ce rapport classe 41 pays de l'OCDE et de l'Union européenne selon l'évolution du taux de pauvreté des enfants entre 2008 et 2012. La France se situe en 30<sup>e</sup> position, avec une augmentation du taux de pauvreté des enfants de 3 points (de 15,6 % à 18,6 %) sur cette période, ce qui correspond à une augmentation nette d'environ 440 000 enfants pauvres. La récession a particulièrement frappé les 15-24 ans, avec une augmentation d'un million du nombre de jeunes ne suivant ni études, ni formation et ne travaillant pas. Cette hausse est considérable et porte, en 2013, le nombre de ces jeunes à environ 7,5 millions dans l'Union européenne. La France se situe au 12<sup>e</sup> rang sur les 41 pays étudiés avec 11,2 % des 15-24 ans qui n'étaient pas scolarisés, n'avaient pas de travail ou ne suivaient pas de formation en 2013.

Aparicio, A. et Luna, L. G. (2013). Recessions and babies' health, Department of Economics and Business, Universitat Pompeu Fabra, Economics Working Papers.

<http://www.econ.upf.edu/docs/papers/downloads/1374.pdf>

We study the effect of the business cycle on the health of newborn babies using 30 years of birth certificate data for Spain. Exploiting regional variation over time, we find that babies are born healthier when the local unemployment rate is high. Although fertility is lower during recessions, the effect on health is not the result of selection (healthier mothers being more likely to conceive when unemployment is high). We match multiple births to the same parents and find that the main result survives the inclusion of parents fixed-effects. We then explore a range of maternal behaviors as potential channels. Fertility-age women do not appear to engage in significantly healthier behaviors during recessions (in terms of exercise, nutrition, smoking and drinking). However, they are more likely to be out of work. Maternal employment during pregnancy is in turn negatively correlated with babies' health. We conclude that maternal employment is a plausible mediating channel.

Marcus, J. (2013). "The Effect of Unemployment on the Mental Health of Spouses--Evidence from Plant Closures in Germany." *Journal of Health Economics* **32**(3): 546-558.

<http://www.sciencedirect.com/science/journal/01676296>

Studies on health effects of unemployment usually neglect spillover effects on spouses. This study specifically investigates the effect of an individual's unemployment on the mental health of their spouse. In order to allow for causal interpretation of the estimates, it focuses on plant closure as entry into unemployment, and combines difference-in-difference and matching based on entropy balancing to provide robustness against observable and time-invariant unobservable heterogeneity. Using German socio-economic panel study data the paper reveals that unemployment decreases the mental health of spouses almost as much as for the directly affected individuals. The findings highlight that previous studies underestimate the public health costs of unemployment as they do not account for the potential consequences for spouses.

Powdthavee, N. et Vernoit, J. (2013). "Parental Unemployment and Children's Happiness: A Longitudinal Study of Young People's Well-Being in Unemployed Households." *Labour Economics* **24**: 253-263.

<http://www.sciencedirect.com/science/journal/09275371>

Using a unique longitudinal data of British youths, we estimate how adolescents' overall happiness is related to parents' exposure to unemployment. Our within-child estimates suggest that parental job loss when the child was relatively young has a positive influence on children's overall happiness. However, this positive association became either strongly negative or statistically insignificant as the child grew older. The estimated effects of parental job loss on children's happiness also appear to be unrelated to its effect on family income, parent-child interaction, and children's school experience. Together these findings offer new psychological evidence of unemployment effects on children's livelihood.

## 2012

Powdthavee, N. et Vernoit, J. (2012). The Transferable Scars: A Longitudinal Evidence of Psychological Impact of Past Parental Unemployment on Adolescents in the United Kingdom, Centre for Economic Performance, LSE, CEP Discussion Papers.

<http://cep.lse.ac.uk/pubs/download/dp1165.pdf>

Using a longitudinal data of British youths, this paper explores the consequences of past parental unemployment on the current happiness and self-esteem of the children. We find that a past unemployment spell of the father has important consequences for their children and leads to them having both lower subjective well-being and self-confidence. In addition, this paper also presents evidence that both subjective well-being and self-confidence responds differently to maternal unemployment compared to paternal unemployment. In our final table, we show changes in adolescents' well-being and self-esteem predicts educational attainments at 16. Together these findings offer new evidence of unemployment scarring on children's livelihood.

## 2011

Harkonen, J. (2011). "Children and Dual Worklessness in Europe: A Comparison of Nine Countries." *European Journal of Population/Revue Européenne de Démographie* **27**(2): 217-241.

<http://link.springer.com/journal/volumesAndIssues/10680>

Parents' labour market status is a strong determinant of children's economic well-being, and children living in jobless households are particularly vulnerable. However, previous research has not focused on the association between children and household worklessness. In this paper, I used ECHP data from nine European countries to analyse the effects of the number and age of children on the probability that neither partner of a couple works. Results from random-effects regressions show that children increase the risk of dual worklessness in five of the countries. The effects were particularly strong in the United Kingdom and Ireland, and more generally, stronger in countries with little institutional support for working mothers, low levels of employment protection, and unexpectedly, where benefits were less likely to be means-tested. The risk of dual joblessness diminished with the age of the youngest child in Belgium, Finland, France and the United Kingdom and more generally, slower in countries with a strict employment protection regime and a high level of means-testing of social benefits. Having children can thus affect the labour market position of households, and influence their economic well-being. However, these effects can be shaped by the social policy and labour market solutions countries adopt.

Hill, H. D., et al. (2011). "Getting a Job Is Only Half the Battle: Maternal Job Loss and Child Classroom Behavior in Low-Income Families." *Journal of Policy Analysis and Management* **30**(2): 310-333.

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291520-6688/issues>

This study uses data from an experimental employment program and instrumental variables (IV) estimation to examine the effects of maternal job loss on child classroom behavior. Random assignment to the treatment at one of three program sites is an exogenous predictor of employment patterns. Cross-site variation in treatment-control differences is used to identify the effects of employment levels and transitions. Under certain assumptions, this method controls for unobserved correlates of job loss and child well-being, as well as measurement error and simultaneity. IV estimates suggest that maternal job loss sharply increases problem behavior but has neutral effects on positive social behavior. Current employment programs concentrate primarily on job entry, but these findings point to the importance of promoting job stability for workers and their children.