外部大冲击背景下公共交通出行及其量化指标*

INDICATORS FOR PUBLIC TRANSPORTATION TRAVEL UNDER BIG EXTERNAL SHOCK

周江评 ZHOU Jiangping

【摘要】新冠病毒是人类近百余年遭遇的最大外部冲击(广域流行疾病)。这个冲击对城乡生产、生活、包括公共交通出行产生巨大、深远和广关的影响。人们需要重新审视与过往既有的公共交的规划、政策与管理工作相关的认知、经验新冠疫情方式、绩效指标等等,才能更好地指导新冠疫情中、新冠疫情后的相关工作。文章提出一个核情中、新冠疫性、变化性、柔韧性和恢复力4个核下出行稳定性、变化性、柔韧性和恢复力4个核心概念的认识框架,并提出了8个指标或可视化方法具体落实该框架。结合北京、香港的实际数据,文章说明了有关指标和方法。

【关建词】外部冲击;影响;公共交通出行;认识框架;指标

ABSTRACT: The COVID-19 is the most tremendous external shock (pandemic) encountered by the mankind in the past 100 years or so. The shock produces massive, long-lasting, and wideranging impacts on work and life in urban and rural areas. We must revisit our past and existing knowledge, experience, method and performance measures concerning public transportation planning, policy, and management so as to better guide related practice and research amid and after the COVID-19 pandemic. This paper proposes a new ideological framework consisting of four key concepts: travel stability, change, resilience, and recovery. It also introduces eight indicators or visuals to operationalise the framework. It illustrates those indicators and visuals based on empirical data from Beijing and Hong Kong.

KEYWORDS: external shock; impact; public transportation travel; ideological framework; indicator

2020年是人类自1918年西班牙大流感以来,

被迫面对全球性流行病冲击肆虐的又一个特殊年 份。一种被世卫组织命名为 "COVID-19" 的新 型冠状病毒,令世界上绝大多数国家、地区措手 不及。面对疫情,尽管各国、各地区采取了(局 部)"封城"、保持社交距离、网上会议、减少 航班、远程办公、边界严控等等前所未有的措 施,但截至2020年的11月上旬,全世界仍然已经 有近5千万人感染了新冠病毒,更有100多万人或 因为新冠病毒感染本身,或因为有关感染加既有 基础病而不幸去世[®]。悲伤之余,各国、各地区 的政府、企事业单位、民众也在小心谨慎地努力 慢慢恢复正常的生活、生产秩序。对于大量的亚 洲高密度、人口众多的城市,例如东京、首尔、 新加坡、香港、北京、上海、广州、深圳等,公 共交通在促进以上秩序的恢复过程当中,扮演着 极其重要的角色。以香港为例,在新冠前,城市 里90%的出行需要依赖于公共交通完成。在新冠 疫情缓解的情况下,甚至是在新冠疫情完全受控 的新冠后时代,即使有少部分人有经济实力,转 变到小汽车出行而不再仰仗公共交通出行, 也有 非常高比例的出行民众,还是离不开公共交通。 但是因为新冠疫情暴发的突然性和影响的广泛 性、深远性,以往在非新冠时代积累起来的对居 民公共交通出行特征的认知、经验、工作方式、 绩效指标等等, 还能很好地指导新冠疫情中及新 冠疫情后,也就是一场巨大外部冲击(shock)下 的公共交通规划、政策与管理工作吗?

本文认为,首先,人们需要重新审视相关 认知、经验、工作方式、绩效指标等等,才能更 好地指导新冠疫情中及新冠疫情后的公共交通规 划、政策与管理工作。其次,面对新冠疫情,公 共交通从业者、研究者需要建立一个新的公共交 通出行稳定性、变化性、柔韧性和恢复力的认识 框架。再次,需要根据这些框架,重新研究公共 交通出行者的分类、特征及其相关量化指标、可 视化表达。文章将以北京、香港轨道交通(地铁 【文章编号】1002-1329 (2021)12-0059-08

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40;£00 3[−]ÑôÃÅ ¶«Ö+ÃÅ 1 2¡ÞoC jìµ¥Õ¾ î÷Ö±ÃÅ ±±¾©ÄÏÕ¾ ±±¾©Õ¾ ó¿1t0¡ÞoC À'¼Òx ºô¼ÒÂ¥ ³¸ ÈÑ òÛ Êî ¹Ã ÈýÔªÇÅ 800 oC ¶«µ¥ î∸¶bÆì [¤[¤£¬) ììí"Ô-++ ÊÖ»úÓû§¾′ ÊÖÔ²ùÒ»}£¬-j¢ËÕØlfa 600 OC 5 000 Ò»'² ÓÀ°²Àï 10 000 30 000 ÖĐλÊý=364 70 000 000 00 3 000 00 ÖÇÄܹ«¹2½»Í"¿"³Ë¿ÍÊý ĺ¼2ĺ¬Ê±³öĐеľ-³£ĐÔ³öĐĐÕߣ®ÖÇÄܹ«¹2½»Í¨¿¨³Ë¿ĺºĺÊÖ»úÓû§ Fig£®2 Concurrent recurrent metro riders£¬smartcard users and mobile phone users ±í2ĺⲿ³å»÷Ϲ«¹²½»ĺ¨Á¿»¯Ö¸±êÓë¿ÉÊÓ»¯ Tab£®2Public transport indicators and visuals under external shock(s) ÒâÒå ÓĐЧĐÔ¼°ÒÑÓĐʵÀý Ö.±ê ⁰¬Òå ʹÓù«¹²½»Í¨ÏµÍ³²»Í¬µÄ³Ë¿Í£¬ÕâĐ©³Ë ¿ĺ¿ÉÒÔ¼Ù¶"ΪһֱʹÓÃijÒ»ÕŹ«¹²½»Ĭ"¹«Ë¾ÕæÊμ·þĨñμÄ¿ĺ»§ ZHOUµÈ¡±¡-ÀûÓÃÉîÛÚÖÇÄܹ«½»¿"Ë¢¿" ²»Öظ´µÄ³öĐĐÕß Êý¾Ý¼ÆËãÁËÕâЩָ±ê£¬²¢ÈÏΪÕâĐ© (Distinct riders) Ö¸±ê¸Ä½øÁ˼ÈÓÐÆ½¾ùÁ÷Á¿µÄÖ¸±ê¡£Àý 鍣®²»ÖØ、´µÄ³öĐĐÕßÔÚ¹¤x÷ÈÕ°ÍÖÜÄ© ÔÚ¸ø¶"µÄÑĐ¾¿Ê±¶ĨÄÚ(ÀýÈçÒ»ÖÜ)£¬³ðÐн»Í"¹«Ë¾ÔÚ¶Ìʱ¼äÄÚĐèÒ€ÉÒÔ±ÍÏÖΪÍêÈ«²»Ò»ÑùµÄ³Ë¿Í¡£Í¬ 3/-3FĐÔ3öĐĐÕß ÖÁÉÙ±£Ö¤µÄ¹«¹²½»Í°³öÐĐĐèÇʱ£®ÒÑÓĐÓ°ÏìÁ÷Á¿µÄÒòËØ£¬²»Ò»¶°Ó° (Frequent riders) ³¬¹ýÁ½´ÎµÄ³öĐĐÕß ÏìÕâĐ©Ö,±ê ZHOU- μ ÈtTM]½«Í¬Ê±³öÐĐ μ ľ-³£ĐÔ³öĐĐ ½ø¡¢³öµÄ¾-³£ĐÔ³öĐĐÕß (Concurrent frequent riders) ¼²²¡´«²¥½¡¿μ⋅çÏÕ İÉúÈË¡°µÄÒâÒ壮²¢ÑĐ¾¿ÁËÓ°Ïì¡£Êì Ϊ¤μÄİÉúÈË¡±μÄÒòËØ ÒÀ¿¿¹°¹²½»Í°³öÐеĺËÐŤ×÷ZHOUµÈ¡§61ÈÏΪÕâÁ½Àà³öÐÐÕß¶ÔÓÚ¹« ¼á³ÖµÄ³öĐĐÕß ¼´Ê¹Ãæ¶Ôĺⲿ³å»÷£®³öÐÐģʽ£®ÌØÕ ĒĒÔ±£®»òÕß³ýÁ˹«¹²½»Í°£®Ãæ½»Í∵þÎñ¹©¸øÊÇÓв»Í¬⁰¬ÒåµÄ£®Àý (Persistent riders) ÓĐÏÔÖø±ä» ¬µÄ³öĐĐÕß ÓĐÆäËûÌæ´ú³öĐĐ·½Ê½μijöĐ**ĐĢî**»ĵµÄ³öĐĐÕß³öĐĐĐèÇóµÄÂúxã¿ÉÒÔ Ãæ¶Ôĺⲿ³å»÷£®³öÐÐģʽ£¬ÌØÕ÷ÏÔÖ**¶Ĥ**ÁÚÚ³öÐÐÎȶ¨ÐÔ£¬±ä»¯ĐÔ¡¢**ĒÇ**¹«½»£®Ò²¿ÉÒÔÊÇÆäËû·½Ê½£®ÕâÓë¼á Áé»îµÄ³öÐĐÕß ³ÖµÄ³öÐÐÕߵķ´Ó¦²»Í¬ »⁻μijöĐĐÕß ĐÔÓ°Ïìxî′óµÄ³öĐĐÕß (Choice riders) ¡°ºĺÄãÏàËÆµÄ³öĐĐÕß¡⁻ (Someone; al ike you riders) Àý¼ûͼ2¼°ÆäÏà¹ØËµÃ÷ ¹ØμÄÁ÷ĐĐ¼²²¡´«²¥½¡¿μ⋅çΪÕ ÔÚ²»Í¬Ê±¼ä¶Î£®²»Í¬³öÐĐÕß¶à´ó³Ì¶ÈÉÏ
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